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An exploration of the relevance of values to clinical interventions and working with Mentally Disordered Offenders

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Abstract

Introduction

The relevance of individuals' values to clinical situations is increasingly recognised in political and clinical contexts. Enhancing an individual's capacity to live consistently with their values is assumed to facilitate mental well-being and quality of life (QoL). However, little research has empirically investigated whether this focus is appropriate. This collection of studies will examine the relationship between values, well-being and QoL.

'Valued living' is a core aim of Acceptance and Commitment Therapy (ACT) but it has received little empirical attention. The values identified within ACT may not be equally applicable to all clinical populations. Encouraging value-consistent action is often assumed to be inappropriate to offender populations. Schwartz's universal model of human values is introduced to inform understanding of the relationship between values and well-being and whether mentally disordered offenders (MDOs) have similar values to a non-psychologically distressed comparison group.

Method

Study 1 investigated the relationship between values, quality of life (QoL), psychological distress and psychological inflexibility (cognitive fusion and experiential avoidance) amongst a sample from the non-clinical sample (N = 109) using an online survey. Study 2 compared a sub-sample from study 1 with MDOs detained in medium security (N = 15) on the same measures. Study 3 explored participants' beliefs about the origin and maintenance of meaningful values. Responses were coded according to ACT literature and analysed using content analysis.

Results

Amongst the non-clinical population, QoL was positively correlated with 'valued living', and negatively correlated with psychological inflexibility and distress. Psychological distress and psychological inflexibility correlated positively with the Openness to Change value domain and conservatism correlated negatively with psychological distress. No other relationships were observed between psychological flexibility or distress and value domain in the non-clinical population. MDOs had higher rates of psychological distress and lower psychological flexibility and QoL than the non-distressed population; they also attributed less importance to the self-transcendence value domain and more to self-enhancement. Benevolence was ranked

significantly lower by the MDO sample. Other large effect sizes were detected reflecting differences between the samples, but they were not statistically significant. Intrinsic reinforcement was considered an important factor that maintained values as meaningful to all participants. Self-report data suggests that there are similarities and differences to how each sample conceptualises values.

Discussion

A clinical focus on values appears to be justified. The addition of Schwartz's model provided insight into the values of MDOs. The clinical and theoretical implications of the results are discussed as are the strengths and limitations of the study.

Background to this thesis

The importance of individuals' values is increasingly being recognised within healthcare settings. The National Health Service (NHS) and Scottish Government have significantly invested in 'Recovery' which promotes the philosophy that individuals should be supported to live a meaningful and fulfilling life, regardless of psychiatric symptoms (The Scottish Government, 2009). Within psychological interventions, addressing individuals' values has also become prominent. They are emphasised in positive psychology (e.g.: Joseph & Linley, 2004), cognitive therapy (Kuyken *et al.,* 2009) and are at the core of Acceptance and Commitment Therapy (Hayes *et al.*, 1999).

Most people engage in psychological interventions in order to facilitate a change in their life, improve their subjective quality of life or reduce psychiatric symptoms. Encouraging people to live consistently with their values intuitively seems to be the right course of action to achieve these goals. However there is little research that empirically examines this. It is important to identify whether a primary focus on values is justified.

Throughout the course of Clinical Psychology training, the researcher has worked in a medium secure unit for mentally disordered offenders. This population has multiple needs and presents clinicians with many challenges. There is a significant lack of research regarding this population in general. The development of Acceptance and Commitment Therapy (ACT) constitutes an exciting development in potential suitable interventions due to the prevalence of behaviours indicative of experiential avoidance. ACT's emphasis on values has the potential capacity to facilitate engagement and meaningful change. Therefore, this study hopes to begin to examine the role of ACT with this population and facilitate a greater understanding of the values they hold, and how these values are constructed.

Layout of Thesis

The introduction will outline relevant research, and is comprised of five sections. The first outlines the concept of quality of life and how it relates to the objectives of the Scottish Government. The second section introduces the mentally disordered offender (MDO) population, the challenges they present and the limited research that investigates their QoL. ACT is presented in the third section, paying particular attention to the model and the role of values. The potential relevance of the Schwartz's model of values is discussed next. Finally, the MDO population is revisited in relation to the models and issues presented. At the end of the introduction, the rationale for the current study is presented with the hypotheses to be investigated.

The thesis is then divided into studies 1, 2 and 3. The method, results and discussion are presented independently for each study. The first study examines values and ACT processes in a non-clinical sample taken from a convenience sample. Study 2 compares the same concepts in a sample of mentally disordered offenders with matched individuals from a non-clinical sample. The third study constitutes an exploration of individuals' views on where values originate and the factors that maintain them.

The overall conclusions, strengths and limitations and possible recommendations for future research are presented in chapter nine.

To aid the reader, a glossary of terms is located in Appendix 1.

1. Introduction

Effective action cannot be defined in a vacuum… Values give coherence to the acceptance of uncomfortable private events and at the same time indicates the particular aspects of the environment that are most important.

(Vilardaga *et al.*, 2007, p. 123).

1.1 Scotland's Mental Well-Being

Although this thesis evolved from clinical observations and experiences encountered in clinical practice, the focus on values fits within a wider political context. The Scottish Government is committed to addressing and promoting positive mental health in Scotland. Since 2001, this has formed a formal objective (The Scottish Government, 2007). The 'Well Scotland Initiative' assigned the NHS the role of supporting and leading mental health improvement (The Scottish Government, 2009). Its definition of 'mental health' incorporates emotional well-being, life satisfaction and functioning. Addressing mental well-being across Scotland is a huge endeavour and this initiative has focussed on five areas; one of which is 'improving the quality of life of those experiencing mental health problems and mental illness' (The Scottish Government, 2009, p.10). The initiative acknowledged that value-consistent action is one factor that facilitates mental well-being, thus emphasising the potential role of values and the benefits of pursuing them, but it neglected to provide an operational definition of 'values' applicable to clinical settings. The role that values can play in mental health and quality of life has yet to be clearly established empirically, despite their mutual emphasis in healthcare strategies. Given the current financial pressures facing the NHS, it is important that strategies are founded on an apropriate evidence base.

The 'recovery' approach can be considered to be an application of the 'Well Scotland' initiative to those with mental illness (The Scottish Government, 2009). The 'recovery' focus on mental well-being encapsulates more than the absence and treatment of psychiatric symptoms and promotes a holistic view of individuals that extends to other domains of functioning (e.g. education, relationships, recreation). Individualised care and a respect for diversity are at the forefront of its implementation and therefore 'recovery' has to be tailored to the individual in terms of what is personally important to them. However, to some extent this is a difficult model to operationalise in clinical situations. How individuals can be supported to discover what provides them with meaning and purpose in life presents challenges to health staff; for example, for those individuals with extensive histories of trauma, neglect and abuse, or those subject to compulsory treatment, considering the shape they want their life to take could be a challenging process. In settings where risk management is fundamental, individuals may be unsure of their values or unable to articulate them, and health staff may require greater guidance about how to

work consistently with the model. Clinically relevant research needs to provide evidence to guide professionals in situations such as this.

These initiatives aim to improve the quality of life of individuals with mental illness. Both 'recovery' and 'quality of life' are concepts that share a holistic view of individuals rather than a perspective limited to psychiatric care or risk management. However, quality of life is the more established concept within empirical research. Acknowledging and measuring quality of life appears crucial to implementing the 'Well Scotland' initiative and recovery model because it constitutes a possible outcome measure.

1.1.1 Quality of life

Quality of life (QoL) is a complicated concept because of the multiple definitions associated with the term (Edmund & Tancredi, 1985). There is no universally agreed definition of it (Holmes, 2005), but the most frequently cited originates from the World Health Organization (WHO), who define QoL as an 'individual's perception of their position in life and the context of the culture and the value system in which they live and in relation to their goals, expectations and concerns' (The WHOQOL Group, 1995, p. 1405) and this is the definition that will be adoped in this thesis. A key aspect of this definition is if a person can pursue and achieve in the life domains they find meaningful. Measuring QoL is highly relevant to clinical settings, it refers to a subjective evaluation of an individual's life, of which health is a component.

There is a wide variety of literature about QoL and its connection to a range of domains. It has been extensively examined in relation to mental health, although multiple definitions and measures hinder the comparison of results. Many studies have shown that those with mental illness have a lower QoL than non-clinical populations; however it would not be feasible to examine the entire evidence base supporting this suggestion in this document.

One recent study (Evans, *et* al., 2007) compared the QoL of a 'healthy' population (N = 1199) with individuals with common mental health disorders (CMD) (N = 794) in Manchester with people with severe and enduring mental illness (SEMI) who predominantly lived in London (N = 149). The first two samples were allocated to each group according to their responses to a measure of psychological health. The authors found that there was a statistically significant difference in QoL between the three groups, with the SEMI sample faring the worst. Large effect sizes were obtained. However, the authors did not discuss the potential impact of geographical location on QoL as a confounding varibale. It is also possible that methodology influenced the

results, the participants in the 'healthy' and CMD samples responded to a postal survey, in contrast the SEMI sample were actively engaged in treatment and their responses were collected during face-to-face interviews. This could have predisposed the latter group to either over or underestimate their QoL if they wanted to potentially increase or decrease their contact with services. Despite these limitations, these results demonstrate clear discrepancies that suggest QoL is impaired in those with mental health difficulties and these discrepancies need to be addressed.

1.1.2 Summary

Scottish Government policies are increasingly recognising mental health as encapsulating more than the absence of psychiatric symptoms. One focus of the 'Well Scotland' imitative is to improve the QoL of those with mental health problems. Although QoL is crucial to mental health and promoting positive well-being, it is often compromised in those with mental illness. Various psychological factors have been associated with improved QoL and it is assumed that living consistently with personal values is one. The initiative assumes that QoL and the processes contributing to it are not compromised in those without psychological distress. There is currently little evidence to support this assumption and this possibility warrants investigation. This thesis will begin to explore the relationship between value-consistent action and QoL in a non-clinical population.

The 'recovery' model represents a clinical application of this initiative. Within mental health services, 'recovery' is becoming increasingly influential; however, it can be difficult to operationalise in some settings. It is unclear whether there is a difference in value-consistent action between non-clinical and clinical populations and how this could relate to QoL. Whether the processes contributing to QoL and value consistent action is different among those with mental illness compared to those without has not been established. This thesis will explore this question in a subgroup of those with significant mental health problems – mentally disordered offenders - and identify what it is they find meaningful.

1.2 Introduction to Mentally Disordered Offenders

1.2.1 The Mentally Disordered Offender population

The term ‘mentally disordered offender’ is one used to describe an individual with a mental disorder who has committed a criminal offence (Muller-Isberner & Hodgins, 2000). The term relates to the Mental Health Act (Scotland) 2003 (MHA) and acts as a broad descriptor of a group of people rather than a clinical diagnosis, and therefore incorporates individuals with diverse presentations. According to the act, ‘mental disorder’ includes anyone with a mental illness, personality disorder or learning disability; the MDO label is applied to those who have offended.

Not everyone who has acquired the MDO label would be cared for in secure psychiatric inpatient settings, some may live in the community or be serving their sentence in prison. However, secure psychiatric care is provided to those offenders with significant ongoing mental health problems who are considered to represent a risk of harm to society or themselves. This risk is normally assessed by a psychiatrist, who ascertains whether they meet the criteria for a major mental disorder as defined by the ICD-10 (The World Health Organization, 1992), for compulsory treatment under the MHA (see Figure 1) and whether their needs require to be met in secure care. Secure care establishes a safe environment for patients and staff that facilitate treatment and protects the wider community (The Forensic Network, 2004).There are three levels of secure patient care to cater for different levels of risk that individuals pose to others: high, medium and low. Patients move between environments according to their current level of risk, which is evaluated by the multi-disciplinary team responsible for their care.

Figure 1: The criteria according to which people can be compulsorily treated under the Mental Health (Scotland) Act 2003 (p. 131)

Those conditions are –
a) that the patient has a mental disorder;
b) that medical treatment which would be likely to –

(i) prevent the mental disorder worsening; or
(ii) alleviate any of the symptoms, or effects, of the disorder,

is available for the patient; and

c) that if the patient were not provided with such medical treatment there would be a significant risk –
(i) to the health, safety or welfare of the patient; or
(ii) to the safety of any other person

Medium security caters for individuals who present a serious but less immediate danger to others than those in high security and this risk is combined with the potential to abscond (The Forensic Network, 2004). In Scotland there are two medium secure units which provide care for the east and west of Scotland respectively. All patients within these units are compulsorily detained under the Mental Health Act (Scotland) 2003 or the Criminal Procedures (Scotland) Act 1995. Individuals are referred from a variety of sources (police stations, prisons, other psychiatric facilities).

This is a complex patient group, as demonstrated by a psychological needs assessment of patients in medium security (N = 41, Mair, 2006). Eighty percent had a primary diagnosis of schizophrenia, schizoaffective or delusional disorder while the other 20% had a mood disorder. Twenty-nine percent of inpatients had a secondary diagnosis of substance misuse, and a further 29% had a formal diagnosis of personality disorder. Interventions for psychosis were the most frequently identified psychological need, followed by interpersonal and motivational difficulties. Substance misuse interventions were recommended for 59%. As well as current problems, this population also have longstanding difficulties; for example those who become offenders are more likely to have had disruptive developmental histories, had experience of abuse or come from families that offend (Day & Ward, submitted for publication).

Within forensic mental health, professionals hold dual responsibility: that of public protection and patient care (Carroll *et al.*, 2004). Professionals monitor and manage the risks posed by individuals, promote personally fulfilling and pro-social behaviours and also discourage negative behaviours. Considering the needs of the MDO population and the responsibilities of the clinicians who work with them, establishing collaborative interventions that facilitate engagement is crucial. However, this patient group is commonly considered difficult to engage and unmotivated (Willshire & Brodsky, 2001) and this hinders the possibility of collaborative interventions. Although they require multi-disciplinary involvement, it is only medication that can be administered without consent (under specific conditions), the other disciplines require a collaborative working relationship to effect change. MDOs frequently do not volunteer for treatment and treatment goals are primarily identified by the clinical team responsible for their care. This reduces the likelihood of intrinsic motivation and patients often conceptualise their difficulties differently to the clinical team. They often do not anticipate benefit from formal psychological interventions. These factors combine to significant difficulties establishing collaborative relationships.

Relative to other areas of clinical psychology, there is a distinct lack of research specific to this population. This may partly reflect the lack of clinical psychologists working in this area, but also the complexity of the client group. However, the need for research with this population remains prominent. Among this population there is a high degree and variety of clinical needs and strategies to overcome difficulties of engagement are crucial. The considerations applicable to the well-being of the public also apply to this population. Therefore, it is hoped that by exploring the issue of what is important to this population, this research may provide one way of trying to overcome these challenges.

1.2.1.1 Considering the well-being of MDOs

Secure psychiatric care represents one part of the spectrum of available care for those with severe and enduring mental illness (SEMI). Therefore the 'recovery' model is equally relevant to MDOs as those individuals catered for elsewhere in services. Contemplating how this model can be implemented within the MDO population to improve their QoL is important and consistent with the 'Well Scotland' initiative. As well as the impact on the individual, poor mental state is often a destabilising factor that could increase the risk of violence (Webster *et al*., 1997), consequently the QoL of MDOs is an area that requires exploration with a view to improving it. One way of doing this may be by addressing value consistent action as has been suggested by the 'recovery' model. Therefore, instead of focusing on the deficits prevalent within this population, a focus on appropriate behaviours and improved QoL may increase the perceived benefits of interventions and encourage engagement. It may also improve well-being and therefore indirectly reduce risk. However, this is an area that remains relatively unexplored.

1.2.1.1.1 MDO population and QoL

QoL is one possible outcome measure for considering the well-being of MDOs, but it has rarely been employed as such (Bouman *et al*., 2008). Comparisons of QoL between community-based sexual and violent offenders (N = 135) suggest that sexual offenders have a higher subjective QoL; and that male community forensic patients have a lower QoL than adult males in the general population (Bouman *et al.*, 2008). Participants in this study were male and had a primary diagnosis of personality disorder. This contrasts with MDOs resident in secure psychiatric care in Scotland, who would be unlikely to be detained if personality disorder was their primary diagnosis. Therefore the clinical presentation of this sample could be very different to that encountered in secure care. It is also of note that these participants had been in treatment for at least two years, the authors do not state the nature of this treatment and whether it was the same for violent and sexual offenders, but it would be plausible to assume that this impacted on their quality of life. However, this study contributes to the limited evidence base concerning QoL and MDOs.

One study of community-based MDOs found that poorer objective and subjective ratings of QoL had a negative relationship with symptoms of anxiety and depression (Draine & Solomon, 2000). 327 offenders serving parole or probation for a sentence of less than two years were screened for major depression, mania or schizophrenia; the 250 who met this criteria

participated. The relationships were examined with a correlational analysis and therefore the results are not indicative of causality, but small-moderate effect sizes were obtained. However, the validity of the screening process is questionable as it was conducted by a researcher with a PhD in Folklore who had been trained in the measures; it would seem reasonable to assume that the absence of clinical experience would reduce the validity of their judgement. Given the possibility that impaired mental state increases the probability of recidivism, these findings are important to consider in the management of MDOs, and suggest that effective interventions could focus on both QoL and affect

The little available information available about the well-being of offenders (Ogloff & Davis, 2004) or offenders with mental illness, means that clinicians need to refer to literature concerning similar populations. SEMI populations have a lower QoL than others (Evans *et* al, 2007) (see p. 28 for discussion of this study) and schizophrenia is the most prevalent diagnosis in the MDO population. The existing literature appears to predominantly relate to community samples rather than inpatient settings, and this gap could be considered a flaw in the existing evidence base.

Alptekin (et al., 2005) compared a sample of 38 individuals diagnosed with schizophrenia with 31 'healthy' individuals and observed them to have a lower scores in the social, psychological and physical domains of QoL assessed. However, the authors provided insufficient information about the participants for the reader to evaluate the extent to which the results can be generalised to other populations. No description of the recruitment or profile of the 'healthy sample' was provided and the sample diagnosed with schizophrenia was described as 'clinically stable' with no further information about their presentation (for example, did it mean that symptom severity had remained unchanged for a period of time or that symptoms were fully controlled by medication?). The study progressed to investigate the nature of the relationship between impaired executive function and working memory that is associated with schizophrenia and quality of life. They observed that those individuals whose cognitive scores were at least one standard deviation below the mean of the 'healthy' sample had significantly lower scores in the social domain of QoL, than the rest of the clinical sample. This finding was presented as evidence that cognitive impairment further impacted on QoL (in addition to schizophrenia). However, statistical analysis established that there was a difference rather than a causal relationship. Cognitive impairment was assessed via a Controlled Oral Word Association Test and a Digit Span test; although these assessments could be considered informative of cognitive

impairment, they would not be considered sufficient for diagnosing the impairments assumed from participants' performance on these two tests. Despite these limitations, these findings are relevant to an MDO population: the clinical sample had a lower QoL and cognitive impairment appeared relevant to this. It would be valuable if future research examined these relationships with more rigorous methodology so that the full clinical implications can be realised.

Corrigan and Buican (1995) employed a regression analysis to investigate the factors that influence QoL amongst those diagnosed with diagnosed with schizophrenia. 49 individuals who lived in an urban North American community were assessed and the authors observed that depression, social adjustment, size of support network, and verbal intelligence were independently associated with QoL in this population. Increased depressive symptoms appeared to equate with lower QoL (Corrigan & Buican, 1995). 63.3% of participants were African American and it may be that a confounding variable such as social deprivation also contributed to the relationships observed. This study requires replication with a larger sample size before these results can confidently be generalised to similar populations, because the sample size was less than that required for a regression analysis (Cohen, 1992). However, although this is a community sample, the findings highlight the range of factors that are associated with QoL and extend beyond mental illness suggesting that a holistic approach is required if the QoL of similar populations is to be addressed.

These relationships all had a moderate effect size, and were found to be significant despite relatively small sample sizes. The relevant research to date has largely been correlational and therefore causality cannot be ascertained. However from the existing literature suggests it could be inferred that MDOs are at risk of poor QoL. Diagnoses such as schizophrenia, and clinical presentations such as cognitive impairment, are prevalent in a MDO population. Some factors such as the restrictions placed on their freedom and the reactions of others to their previous violence may exacerbate the probability that this population will experience a low QoL. QoL is pertinent to both the well being of an MDO and risk management, consequently this is an area that requires further research with a view to improving it.

1.2.1.1.2 The Good Lives Model

Traditionally, the management of offenders focused on identifying and managing the dynamic risk factors (Ward, 2002) associated with violence. However, treatments with this primary aim are considered unlikely to facilitate engagement, they also take little account of the context in which offenders live or their role in their rehabilitation (Ward, 2002). Although risk management is individualised, the emphasis of the intervention was on the risk rather than what the individual themselves wanted to achieve. This focus on preventing offending behaviour also provided little guidance for collaborative treatment (Ward & Mann, 2004).

Recently clinicians in the field of forensic mental health have begun to utilise The Good Lives Model (GLM, Ward, 2002) as a framework to guide interventions. One key of the GLM is to improve QoL as an indirect method of managing risk. It was originally developed for the rehabilitation of sex offenders but is highly relevant to MDOs. Compared to previous methods of risk management the GLM takes a positive view of human nature. Within the GLM, the needs and well-being of the offender are prioritised. The GLM assumes that sex offenders share the same needs and aspirations as everyone else (Ward, 2002).

The model identifies nine needs and aspirations which it terms ‘primary goods’ (Ward, 2002):

- life (healthy living, optimal physical functioning, sexual satisfaction);
- knowledge;
- excellence (mastery experience) in play and work;
- excellence in agency (i.e. autonomy and self-directedness);
- inner peace (i.e. freedom from distress);
- relatedness (relationships) and community;
- spirituality;
- happiness;
- creativity.

It is hypothesised that these goods are pursued because of intrinsic reinforcement rather than external rewards (Ward & Stewart, 2004). As will be discussed later in the chapter, these needs and aspirations could be considered to be 'valued action'. The priority assigned to each good varies between individuals. Internal skills and external factors affect how these goods are pursued. Offending behaviour is conceptualised as a deficit related to the methods by which these goods are obtained, or a conflict between them. For example, within this model a sexual offence against a child could be formulated as an inappropriate expression of the need for relatedness that has arisen from poor interpersonal skills which prevented the offender from establishing relationships with consenting adults. Therefore, they are motivated by the same values as other people, rather than a distorted value set underpinned by self-interest, a desire to inflict pain or 'evil'.

Publications about the GLM focus on descriptions of the model and justifications for its implementation. Therefore its primary value lies in the guidance it offers clinicians, but it provides little practical instruction about how it should be operationalised. The GLM's aims to manage risk and improve QoL recognises and responds to observations that offenders and therapists often have differing objectives when beginning collaborative interventions. It therefore facilitates engagement and a therapeutic relationship, attempting to overcome a critical challenge faced by professionals.

The GLM has been highly influential throughout forensic psychiatric services. However, the research is largely theoretical. There is little empirical support for its assertions (Sellen *et al*., 2006), possibly due to a dearth of longitudinal data. Advocating a positive focus for interventions with this population may seem unusual; however, a transition towards a 'good lives' is occurring in forensic clinical settings. Research that examines the validity of this is crucial, as is guidance for its implementation.

1.2.2 Summary

MDOs constitute a challenging patient group with a diverse range of clinical needs related to psychopathology and behaviour. However there is a relative lack of clinical research concerning this population. This is unfortunate given their high level of needs, the risks they present to society and the high financial cost of managing these risks.

These individuals do not generally seek psychological treatment voluntarily. They are difficult to engage in interventions, and this can impede treatment efficacy. Research suggests they are at risk of low QoL. However, it may be that structuring interventions around improvements in QoL and value consistent action may encourage greater engagement than a focus on minimising risk while retaining the dual goal of patient well-being and risk management. This approach would be consistent with current Scottish Government and NHS objectives, for those with mental health problems however it is relatively new territory. The recovery model and the GLM provide direction to clinicians, but operationalising these models for a population with needs related to psychopathology and offending behaviour remains difficult. It is therefore necessary to identify a framework for interventions that would help to achieve this aim and assess the potential relevance of it to this population. The following section will outline the model of Acceptance and Commitment Therapy which may provide such a framework.

1.3 ACT

Acceptance and Commitment Therapy (ACT) is a model of therapy that focuses on increasing value-consistent action and therefore may be able to inform the operationalisation of value-focused models in clinical settings.

1.3.1 What is ACT?

Hayes (2004) categorised the evolution of cognitive and behavioural therapies into three waves. The first wave consisted of behaviour therapy, which focused on overtly problematic behaviours and emotions; the corresponding therapies relied on the application of scientifically demonstrated learning principles. The second wave emphasised the role of cognition; any problematic behaviours and emotions were considered indicative of how information is processed. Therefore, therapies targeted thought processes and behavioural strategies supported this goal (Hayes, 2004). The third wave of cognitive behavioural therapies incorporates various recently developed therapies such as Dialectical Behavioural Therapy (DBT) and ACT. This wave emphasises the role of context and function of psychological events, rather than their content (Hayes, 2004).

ACT is an acceptance based therapy with a distinct and comprehensive model with different assumptions, theory and evidence, separate from other cognitive behavioural therapies (Vilardaga *et al.*, 2007). Alternative models of therapy predominantly focus on the nature and frequency of distress in order to modify it directly (Hayes *et al*., 2006). Instead ACT interventions target individuals' relationship with their thoughts and distress, and develop generalisable skills that extend beyond specific problem behaviours. This alters the impact of distressing thoughts and emotions (Blackledge & Hayes, 2001), thereby disempowering them and allowing individuals to pursue a meaningful life despite emotional pain, negative thoughts and distress.

Proponents of ACT suggest that most psychological interventions are erroneously founded on the assumption that psychological health is 'normal' (Hayes *et al.*, 1999). This assumption contributed to a prevalent view that psychological distress is unnatural, unnecessary and should be avoided. Hayes suggested that adhering to this has led applied psychology to support the assumption that controlling negative private events will generate a successful life (Hayes *et al*., 1999). However the assumption of healthy normality appears inconsistent with the prevalence

and ubiquity of suffering (Hayes *et al.*, 1999); instead ACT is based on an assumption of 'destructive normality'. Within this context suffering is viewed as normal, unavoidable and expected. It is not the negative private events that are harmful, but the person's attempts to remove or control them. These control attempts exacerbate distress and prevent people from pursuing the life they want. ACT proposes that these control attempts derive from normal psychological processes (Hayes *et al.*, 1999).

1.3.1.1 The Philosophical origin of ACT

Within functional contextualism, knowledge originates from understanding the function and context of an event rather than dissecting the event into its component parts. Within this philosophy, the success of a theory is judged by the pragmatic truth criterion, i.e. its practical utility (Hayes *et al*., 1999). Functional contextualism underpins radical behaviourism, which constitutes an evolution of traditional behaviourism. Its definition of 'behaviour' incorporates internal psychological events and observable actions; these internal events are termed 'private events' and include thoughts and emotions (Hayes *et al*., 1999). Thus radical behaviourism overcomes a major criticism of behaviourism – i.e. that it ignores cognition and emotion.

ACT represents the clinical application of functional contextualism and radical behaviourism where the function and context of behaviour (including private events) is regarded as paramount. All behaviour occurs within a context influenced by social and historical factors, and this behaviour serves a function; these factors are considered crucial to understanding an individual's presentation. Hayes suggested that when behaviour is addressed via its component parts, the 'features lose their meaning' (Hayes *et al.*, 2004, p.19) and the context is ignored. The pragmatic truth criterion is operationalised in terms of what is useful to the patient and what will facilitate a meaningful and valued life (Ruiz, 2010), therefore the truth criterion provides the underlying guidance to therapy.

1.3.1.2 Aims of ACT

ACT interventions focus on changing an individual's relationship to distress with the use of acceptance, mindfulness and behaviour change techniques (Hayes *et al.*, 2004). The avoidance of negative private events maintains distress through negative reinforcement; but by changing the relationship with distress, the social and verbal (i.e. internal) context of the distress is altered (Hayes *et al.*, 1999) because avoidance is no longer the dominant coping strategy. Behaviour becomes positively reinforced by what is personally meaningful and future distress then occurs in a different context which allows it to be regarded as in the service of a more important valued end. ACT attempts to increase psychological flexibility via two processes: the acceptance of distress outwith a person's control and the ability to live a life that reflects personal values and is thereby meaningful (Harris, 2007). The pursuit of these values constitutes an active choice by the individual (Strosahl *et al.*, 2004). ACT is a behavioural therapy, and therefore encourages participation in value-consistent behaviours. The skills developed during therapy provide new strategies to overcome the negative private events which previously hindered the pursuit of values (Blackledge & Hayes, 2001).

1.3.1.3 Relational Frame Theory

Relational Frame Theory (RFT) describes the development of language processes which can facilitate psychopathology. Human cognition includes the behaviours of thinking, imagining or evaluating and RFT accounts for the process whereby humans learn to identify and derive relationships between stimuli. The process described is similar to that of conditioning but refers to verbal (i.e. internal) processes.

A relational frame develops when two stimuli connect via direct experience, instruction or modelling (Blackledge, 2003). When relationships between stimuli are identified, a relational frame is formed. A 'relational frame' refers to these connected stimuli which can include thoughts, words, memories and emotion. When one stimulus is encountered, the rest of the relational frame is triggered. The relationships between these stimuli cannot be unlearned and so they are thought to develop a powerful influence on behaviour.

When an emotion has become connected to another private event, thinking about a painful memory can evoke the same emotional response as the actual experience (Smith, 2007). The transfer of stimulus functions from the actual event to its verbal representation means that the memory or emotion becomes the object to be avoided as well as the actual event. People then

develop difficulty distinguishing between 'direct functions and verbally established functions' (Hayes *et al*., 2004, p.23) of behaviour and the imagined experience becomes the more powerful determinant of behaviour. These relationships between internal stimuli are especially resistant to extinction (Razran, 1961 cited in Ramnero & Torneke, 2008, p.68). People begin to cope with the distress by avoiding potential triggers for private events (e.g. thoughts, sensations or situations), a form of negative reinforcement. Individuals then find it difficult to maintain contact with the present moment and become entangled in their thoughts which prevents their behaviour from being shaped by direct contingencies.

1.3.1.4 Rule Governed Behaviour

Relational framing leads to 'rule governed behaviour' (RGB) (Hayes, 1993). These learned relationships develop into rules that influence what people do and act as antecedents to behaviour (Torneke *et al*., 2008). There are three kinds of RGB:

1. **Pliance** refers to rules that are socially constructed, i.e. the pursuit of actions is determined by what is important to others. These behaviours are not internally motivated or reinforced.

2. **Tracking** is a form of RGB that is controlled by naturally occurring positive or negative reinforcement (Hayes *et al*., 1999). Once the rule is established, the occurrence of contingencies determines whether the behaviour will occur (Torneke *et al.*, 2008).

3. **Augmental** rules are more abstract, and refer to rules where the consequences are imagined by the individual. The more abstract these consequences are, the more resistant the rule is to extinction because it cannot be contradicted by direct experience.

Although RGB offers many advantages to human functioning, problems emerge when it is applied too rigidly. When a rule is formulated, confirmatory evidence is remembered more than disconfirmatory (Hayes, 1993). RGB is more resistant to feedback from direct experience than behaviour determined by direct contingencies (Hayes *et al*., 1999). These rules become dominant and can be applied in situations where they provide no benefit to the individual, thus maintaining entrenchment in difficulties and entrapment in vicious cycles where problems become exacerbated. RGB then comes to be a more powerful determinant of behaviour than direct experience.

1.3.2 What drives psychopathology?

ACT proposes that the normal psychological processes associated with human language contribute to psychological suffering. These processes allow us to relive and imagine painful experiences and the corresponding emotion; they also allow us to judge, evaluate and problem solve. 'The mind' is considered a metaphor for these processes (Harris, 2007). These skills are beneficial when negotiating concrete and objective problems. However, problem solving is a logical but ineffective tool when applied to distressing private events. It is impossible to delete a memory or emotion at will and efforts to do so create a struggle that exacerbates suffering; where energy becomes directed towards avoiding distress (Harris, 2006, p. 6).

When problem solving skills are applied to psychological distress, ACT identifies two processes by which psychopathology originates and is maintained (Hayes *et al*., 1999):

1. **Cognitive Fusion**

2. **Experiential avoidance**

1.3.2.1 Cognitive fusion

Cognitive fusion is the 'excessive attachment to the literal content of thought' (Luoma *et al.*, 2007, p. 32). These thoughts often concern oneself, have a negative content and are accepted by the individual (Luoma *et al.*, 2007), thereby threatening their sense of self (Strosahl *et al.*, 2004). Negative private events are perceived as permanent and they become self-defining. When the event and corresponding thoughts have become fused and inseparable, distress does not appear to be verbally (i.e. internally) created (Hayes *et al.*, 2004) and the thoughts are responded to in terms of their literal content (Wilson & Murrell, 2004).

These negative private events become all encompassing to the extent that people become absorbed by their internal world and they begin to lose touch with the direct contingencies for their behaviour. This limits opportunities to engage in valued behaviours or behaviours which would challenge these negative events. Decisions and behaviours reflect imagined consequences (augmental RGB) and are reinforced by verbal contingencies, which further increase fusion with thoughts (Vilardaga *et al.*, 2007).

1.3.2.2 Experiential avoidance

Experiences, memories and emotions are pursued or avoided according to evaluations of them (Luoma *et al*., 2007). Those considered 'bad' are perceived as aversive. Individuals can generate a distressing private event anywhere, therefore pain cannot solely be controlled simply by monitoring external situations (Hayes *et al*., 1999). Consequently individuals resort to other behaviours to control their pain. Experiential avoidance occurs when a person purposefully attempts to avoid aversive private events, even when these attempts are unsuccessful or generate further psychological harm (Hayes *et al*., 1999). In some situations experiential avoidance is an appropriate strategy, in which case ACT would not seek to alter its occurrence.

There are two kinds of experiential avoidance:

1. **Suppression**.

   Suppression based forms of experiential avoidance attempt to alter the private event while it occurs, e.g. thought suppression or distraction.

2. **Situational avoidance**.

   Situational avoidance refers to an antecedent strategy to alter the occurrence of an unwanted private event in advance; e.g. substance misuse or deliberate self-harm.

There are several problems associated with experiential avoidance, primarily it is an ineffective tool for resolving distress and improving well-being. Research has shown that there is an increase in the frequency of the thoughts during and after a period of suppression, and an intensification of the intrusions (Wenzlaff & Wegner, 2000). Emotional material is harder to suppress than neutral information (Wenzlaff & Wegner, 2000) but often people find it more difficult to tolerate the associated emotion than the actual thought. Using a suppression strategy to cope with upsetting private events is associated with greater anxiety and more intrusions than an acceptance strategy (Marcks & Woods, 2005) and therefore could be considered counterproductive.

Experiential avoidance is reinforced by the apparent short-term success of this strategy (Wilson & Murrell, 2004), it then heightens individuals' attention towards the target emotion and facilitates hyper-vigilance towards the detection of pain. The degree of associated threat increases with avoidance because the threat is never disconfirmed. The strategies employed also

begin to cue the unwanted experience by becoming a conditioned stimulus, thereby generalising the distress to other stimuli (Hayes *et al.*, 2004).

Experiential avoidance contributes to several psychological difficulties (Hayes *et al*., 2006), e.g. substance misuse, anxiety and suicide (Hayes *et al.*, 2004). Higher levels of experiential avoidance predicted mental health difficulties in a non-clinical population (Bond & Bunce, 2003) and mediated the relationship between traumatic events and resulting psychological distress (e.g. Farach *et al.*, 2008 and Reddy *et al.*, 2006). Experiential avoidance was associated with a lower tolerance of pain (Zettle *et al.*, 2005), predicted lower QoL amongst students (Hayes *et al.*, 2004) and negatively correlated with living in accordance with personal values (Wilson *et al*., 2010).

In reviewing literature Biglan *et al*. (2008) hypothesised that experiential avoidance predisposes people to psychological distress. They concluded that the ability to pursue purposive action despite negative private events predicted success in various domains of human functioning. Therefore they suggested that ACT held promise as a preventative intervention for psychopathology.Cumulatively, the existing research does not indicate that experiential avoidance is the sole process that contributes to distress, just that it could be a prominent one. None of these studies examined a clinical population and therefore research addressing this is crucial to the development of the evidence-base.

1.3.3 Psychological flexibility & inflexibility

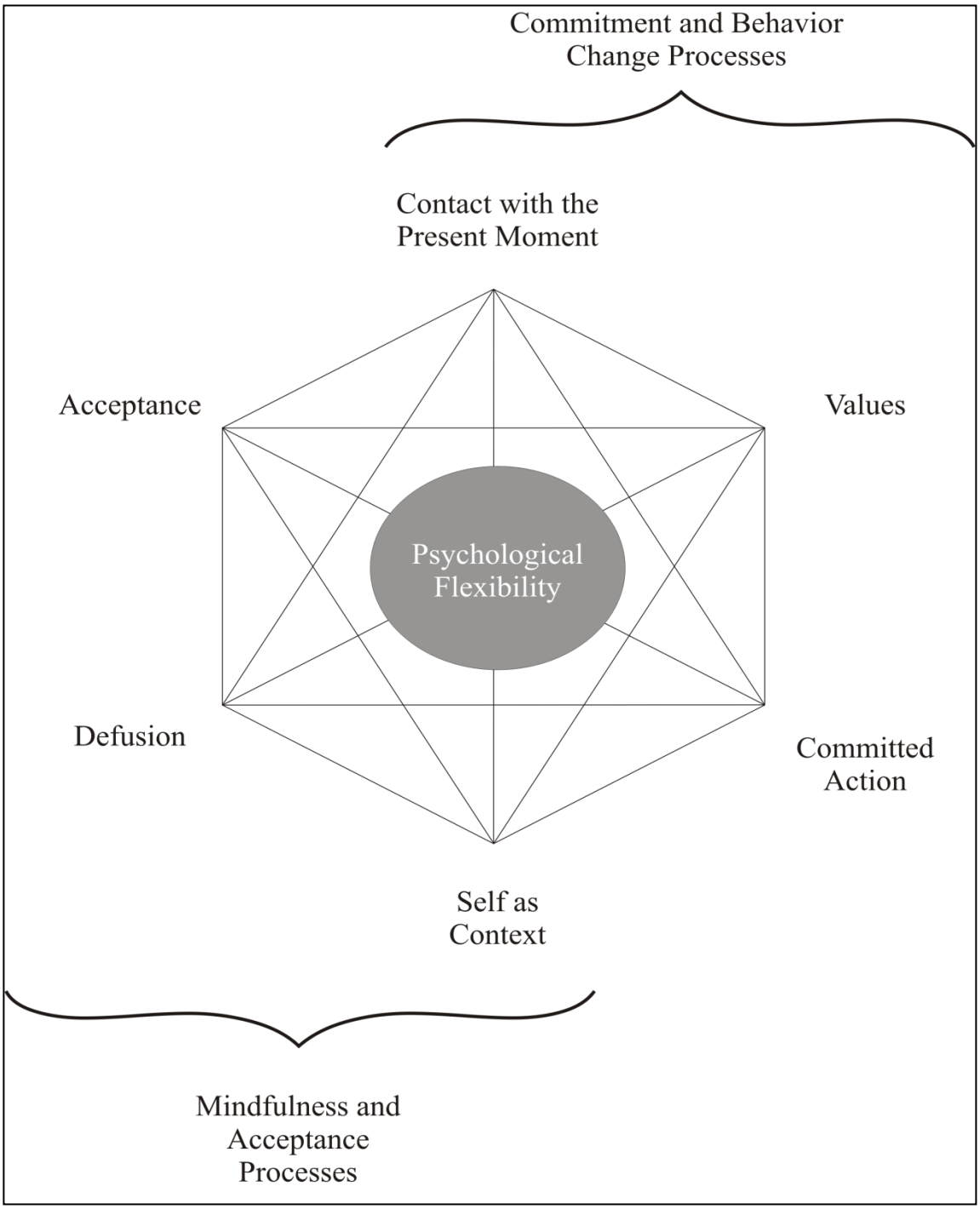
Cognitive fusion and experiential avoidance are hypothesised to contribute to and maintain psychological inflexibility, leading to people becoming trapped in a way of relating to distress that actually exacerbates it. Psychological flexibility constitutes the opposite: individuals are psychologically present; i.e. aware and accepting of their experience, and able to consciously engage in behaviours that allow them to fulfil their values (Blackledge & Hayes, 2001).

ACT interventions target these processes of cognitive fusion and experiential avoidance. Within ACT, these processes are considered dynamic behaviours and the corresponding interventions therefore focus on ongoing behaviours rather than discrete tasks. Any reduction in distress is considered a side-effect of increasing psychological flexibility.

1.3.5 The 'Hexaflex'

The 'hexaflex' is the diagrammatic representation of the ACT model. It contains the six processes which direct an ACT intervention and achieve psychological flexibility. Each process shares properties and is interrelated, as indicated by the connecting lines, but to some extent divisions are artificial (Harris, 2009). Although ACT is currently receiving a lot of empirical attention and is founded on a theory of language development; significant parts of the model remain theoretical and require further clinically-based research.

Figure 2: The ACT Hexaflex



Source: Hayes *et al.*, 2006

1.3.5.1 Cognitive Defusion

ACT assumes that it is more helpful to individuals if behaviour is determined by direct contingencies within their environment. However in cognitive fusion decisions are based on imagined consequences. In cognitive defusion, thoughts, and emotions are recognised as transient and flawed (Harris, 2006). People observe thoughts rather than engage in them. This reduces their impact and increases the influence of direct behavioural contingencies.

1.3.5.2 Contact with the present moment

ACT suggests that cognitive fusion and experiential avoidance result in a focus on the past or imagined future. People become unable to pursue what is important to them because they do not notice opportunities and a focus on imagined consequences and distress dominates (Luoma *et al.*, 2007). Therefore, during an intervention people are encouraged to become aware of their experiences in the present moment (Luoma *et al.*, 2007).

'Contact with the present moment' facilitates self-knowledge which creates an opportunity to change behaviour (Harris, 2009). This direct experience then informs whether behaviours are performed or not (Harris, 2007). People's behavioural repertoire becomes more flexible because it is under the control of direct environmental contingencies and behaviours can be evaluated according to meaningful values. Certain behaviours can then be discarded or increased based on their reinforcement potential.

1.3.5.3 Self-as-context

Self-as-context refers to the realisation that individuals are independent of their thoughts and emotions (Hayes, 2007). It is a process that encourages the awareness that private events are transient and context dependent and therefore do not reflect the core of who they are (Harris, 2006). It therefore encourages a more coherent sense of self, achieving this process reduces investment in distress. There are no formal measures of this, which prevents it from being adequately investigated, but the process appears to reflect observations from clinical practice.

1.3.5.4 Acceptance

ACT pertains that distress is generated from the efforts expended to achieve a life without distress (Hayes *et al*., 1999). In contrast acceptance refers to the 'embrace of those private events when doing so would cause psychological pain … as a method of increasing values based action' (Hayes *et al.*, 2006, p. 7). It is as an ongoing process whereby the individual permits and notices the pain's presence (Hayes *et al.,* 1999) and becomes a tool that facilitates the presence of value consistent action. It does not promote resignation to or tolerance of pain.

Acceptance is not advocated as a blanket approach to all distress, but is recommended when controlling private events is impossible or the methods of control impair QoL (Harris, 2009). The measurement, implications and clinical benefits of increased acceptance have attracted the most research in ACT literature. Research suggests that greater degrees of acceptance can improve resilience and QoL amongst a non-clinical sample comprised of older adults aged over 65, who live independently in the community (Butler & Ciarrochi, 2007); lead to greater tolerance of physical pain that is experimentally induced in a student population (Paez-Blarrina *et al.*, 2008); and is hypothesised to increase individuals' tolerance for challenging events relative to other psychological strategies (e.g. suppression and distraction) (Blackledge & Barnes-Holmes, 2009). However, this research either remains largely theoretical or has occurred within specific non-clinical populations, rather than those whose functioning is impaired by psychological distress, as would be encountered in clinical practice.

1.3.5.5 Values

When distressed, clients appear to develop the belief that they are unable to have the life they want until the distress is resolved (Hayes, 2007) and this becomes the primary criteria by which life is evaluated. Short-term goals such as avoiding pain, protecting themselves and feeling good are prioritised, while the long-term guidance offered by values is ignored (Luoma *et al.*, 2007).

Values are fundamental to the ACT model (Wilson & Murrell, 2004). When living in accordance with values, people are assumed to be pursuing a life where consistent actions and decisions provide long-term positive reinforcement (Powers *et al.*, 2009). The values should be chosen because of their personal salience and reinforcement opportunities, but they are relatively stable over time. Their ongoing and global nature means that the value cannot be fully achieved, and is continually relevant to every facet of life (Luoma *et al.*, 2007).

Values represent the pragmatic truth (Hayes *et al.*, 2004) and consequently are hypothesised to provide the individual with motivation and the therapist with guidance for therapy (Harris, 2007). A person's progress then becomes evaluated against their values rather than the absence of distress. Values are different to goals, as goals constitute achievable markers along a valued path.

Those values based on social compliance (i.e. pliance) or experiential avoidance are considered unlikely to provide a positive outcome for the individual (Luoma *et al*., 2007). Although values are influenced by culture, they should be freely chosen (Luoma *et al.*, 2007) by the individual. The concept of reinforcement is central to identifying individuals' values because the pursuit of meaningful values is intrinsically positively reinforcing to the individual. However, values are also closely aligned to the pain people experience, consequently people may deny their values in order to protect themselves from further distress (Luoma *et al.*, 2007, p.137). However, ultimately values can supply a context to the pain, rendering the pain 'about something that matters to us' (Hayes, 2007, p. 8).

1.3.5.5.1 Values as rule governed behaviour

Values are verbal constructions which provide a long-term framework within which decisions are made and actions are undertaken (Hayes *et al.*, 1999). This is a form of augmental RGB that is unrelated to social, environmental or immediate consequences. Instead, it is related to what individuals find reinforcing. Within an ACT intervention RGB related to values is encouraged. The language associated with their pursuit and the evaluation of actions in relation to them is strengthened (Luoma *et al.*, 2007).

It may seem contradictory that ACT interventions recommend this form of RGB while simultaneously undermining other forms. However ACT is driven by the concept of 'workability' i.e. the pragmatic truth. Processes such as experiential avoidance and cognitive fusion are only targeted if they hinder attempts to have a 'valued life' and are consequently considered 'unworkable'. Values therefore represent a beneficial side of RGB.

1.3.5.5.2 Status of research about values

There is a relative lack of research examining the role of values in psychopathology; within the ACT literature, most writings are theoretical and any empirical evidence is preliminary. Currently, the evidence relates to either the identification of values or the functions they serve for individuals experiencing pain. Outside of the literature concerning the application of ACT to chronic pain, 'valued living' is rarely used as a formal outcome measure, despite constituting a core aim of ACT interventions.

This lack of research could reflect difficulty operationalising the concept. While it is a term people automatically recognise, there are limited tools available to measure values in a way that is conducive to research and facilitates comparisons or generalisations. Most ACT values measures are subjective, but the most objective measures available are the Valued Living Questionnaire (VLQ; Wilson *et al.*, 2010) and the Chronic Pain Values Inventory (CPVI, McCracken & Yang, 2006).

The VLQ is the dominant measure in ACT research (Wilson *et al.*, 2010). The values included in the VLQ were gathered from the authors' clinical experience and relate to relationships and self-fulfilment. However, the authors acknowledge that people may choose other values (Wilson & Murrell, 2004) consequently the list may not be fully representative. Assessing values in relation to a limited list of values may artificially limit the values that can be investigated and the conclusions that can be derived. Generating this list from a specific population may further limit generalisation. It may be that the intrinsic reinforcement of these values amongst those with disrupted attachment or educational experiences may be less powerful. The validity of the measure was assessed with 76 students and a negative relationship was found between the consistency with which people lived with their values and several factors including relationship difficulties, depression and anxiety (Wilson *et al*., 2010). However students could be considered a relatively high functioning population biased towards self-fulfilment; and these relationships have not been studied within a distressed population.

The CPVI is similar to the VLQ. However the domains assessed vary slightly and individuals are provided with greater guidance in its completion. The CPVI was devised in order to investigate the role of values amongst those with chronic pain. The values identified as the most important for 140 participants were family and health; while the least important were friends and growth/learning. The authors observed that health was rated as very important but difficult to

obtain because of their diagnoses and in general this population believed they lived inconsistently with their values. The acceptance of pain and personal success at 'valued living' predicted levels of patient functioning (McCracken & Yang, 2006). Although this used a similar values list to the VLQ, it was administered to those experiencing distress associated with physical pain. This study began to empirically investigate the role and function of values in a clinical population but the role of values amongst those with mental illness remains uninvestigated.

ACT suggests that workable values are intrinsically, rather than extrinsically rewarding and the pursuit of materialistic values is reliant on extrinsic rewards. Pursuing materialistic values (N = 144) was found to be negatively correlated with the presence of meaning in life and relatedness and positively correlated with depression, social anxiety, and negative emotion. These small to moderate effect sizes (.22 to .33) were statistically significant and experiential avoidance mediated the relationships identified (Kashdan & Breen, 2007). The findings suggest that reliance on extrinsic rewards does not generate well-being, but materialism had no significant relationship with positive emotion, so the avoidance of these values may not facilitate well-being either.

ACT emphasises that 'valued living' is a process and assumes that the identification of values provides a context for pain and facilitates a valued life despite suffering (Hayes, 2007). Paez-Blarrina *et al.* (2008) conducted an experiment to identify the impact of values on the tolerance of experimentally induced pain. Thirty adults were assigned to three conditions: (1) a pain acceptance (ACT) condition where experiencing pain was presented as value-consistent, (2) a pain control (CONT) group where accepting the pain was portrayed as incompatible with values and (3) a condition with no instruction related to values. Participants received electric shocks of increasing duration and frequency. Individuals within the ACT condition had a greater tolerance for pain and reported less believability about the amount of pain experienced than the other conditions. The later addition of an ACT consistent coping strategy was more beneficial than a suppression coping strategy or none. The authors observed that 'accepting the pain in the context of values was sufficient to keep most of the participants in the painful task even when feeling high pain and without an explicit coping strategy' (p.95). They hypothesised that this was because participants prioritised values over pain (Paez-Blarrina *et al.*, 2008), but a qualitative exploration would have been enlightening. It is assumed that the ACT condition had greater acceptance of pain but experiential avoidance was not assessed formally, instead it was inferred.

The results of the comparison between the ACT and CONT condition should be regarded with caution because the CONT condition included a specific instruction that the experience was inconsistent with personal values. However, the comparison between the ACT and no instruction condition appears more valid. Despite the small participant numbers, the results provide some support for ACT's assumption that contextualising experience within personal values has clinical applications.

With relation to values, it is clear that this is an area requiring further investigation. Questions remain about the validity of evaluating interventions in terms of 'valued living', whether the values identified within ACT apply to all clinical groups and the relationship between values and behaviour.

1.3.5.6 Committed action

ACT is a behavioural therapy, therefore it encourages learning through direct experience. Committed Action refers to the decision to make a concerted effort to live a value-consistent life despite distress. Corresponding actions allow individuals to directly experience that the private events that previously restricted them, cannot cause the harm anticipated (Luoma *et al.*, 2007) and also facilitates the experience of positive reinforcement to be gained from pursuing values.

1.3.4 Evidence for ACT

The evidence base for ACT interventions is continually evolving. Although ACT has been accused of not being very different to Cognitive Behavioural Therapy (CBT), the ACT community argue that it differs in many respects. Namely, it is based on an underlying theory of the evolution and maintenance of psychopathology and that it is guided by a different aim to CBT ('valued living' as opposed to symptom reduction). The emphasis on processes makes it a more transdiagnostic approach than CBT which is generally adapted according to the target population.

The first systematic review of ACT interventions was conducted by the founders of ACT (Hayes *et al.*, 2006), which may have impaired its objectivity. The review incorporated a range of studies: correlational, meditational, comparisons and a conceptual overview. Consequently it conveyed a breadth of information. The review concluded that ACT works via different processes than CBT. By integrating the results of several studies, ACT interventions were found to have a moderate effect size (.66) at post treatment and follow-up. They concluded that ACT may be more effective than other treatments but that these comparison treatments generally

appeared to be those that could be expected to be less efficacious at outset (e.g. education or TAU). Four studies compared ACT and cognitive approaches, but they had low numbers of participants, and were conducted by ACT researchers which may have generated bias. The evidence-base does require further comparisons between ACT and established treatments but the authors acknowledged that results were preliminary and required further research and independent review.

The first independent systematic review of ACT was more critical of the efficacy of the approach. Ost (2008) examined ACT in the context of third wave therapies, but his distinction of what constituted these therapies probably excluded valuable studies. For example therapies not designed for specific formal psychiatric disorders were excluded, including interventions for stress or relapse in depression. However, in clinical situations individuals may seek treatment for sub-clinical problems.

Ost assessed the methodology of third wave approaches using criteria developed for Post Traumatic Stress Disorder (PTSD). He then compared ACT and CBT studies published in the same journal within a year of each other. However, these interventions have different aims and therefore they would be subject to different outcome measures, but his criteria ignored this possibility. He concluded that the research methodology in third wave studies was poorer than CBT studies. However, the reasons underlying the comparisons with CBT are unclear and seem superfluous to his stated aims. The methodology employed in ACT research could have been assessed without this comparison, which becomes the focus of the paper rather than methodology. This competition between therapies diverts attention from their efficacy. Clinical practice requires a broad range of therapeutic tools and interventions and the competition generated in this systematic review may be unhelpful to clinicians, especially when the process of the comparison is flawed (Gaudiano, 2009).

It was suggested that some information about methodology could have been excluded to adhere to publishing formats (Ost, 2008). Ost stated that there was no reason to assume that CBT did not face the same challenges; however, as a newer treatment, ACT studies typically spend more time explaining the model which could affect the methodological detail reported. In comparison, current CBT studies rarely explain the model in such detail because it is well established.

Only published papers written in English were included; unpublished studies, those awaiting publication and those in other languages were excluded. Studies where treatment was not randomly allocated were also excluded. Efficacy studies typically evolve into randomised controlled trials (RCTs) once the evidence base is sufficiently developed to attract funding or approval from healthcare providers. While RCTs are the gold standard, as a younger treatment ACT is less likely to be able to facilitate such studies. These factors limited the number of studies reviewed and possibly created a bias in the research reported.

ACT and other third wave approaches were found to have a moderate effect size (Ost, 2008) consistent with the review by Hayes *et al*. However, given the emphasis on comparisons with CBT, it is interesting that an overall effect size for CBT was not reported. The review was dismissive of the large effect sizes detected when third wave approaches were compared to waiting-list control groups. While this is the weakest control group (Ost, 2008) it does represent a common alternative faced by service-users, and therefore should not be entirely dismissed.

Guadiano (2009) identified a discrepancy in funding as a significant reason for the suggested methodological weaknesses identified. Ost (2009) later disputed this, but it would seem that greater levels of funding would facilitate research that met the methodological criteria. Guadiano also challenged the process of matching ACT and CBT studies, and raised some valid concerns including whether the interventions were comparable due to the multiple populations investigated. It could be argued that these comparisons were unfair because CBT and ACT are at different stages of development.

Ost supported the need for more research about third wave therapies and this paper prompted academic debate which is invaluable to ACT's development. It also moved the evaluation of ACT from within the ACT community to a broader arena. The list of recommendations for strengthening the evidence base provides crucial guidance for ACT and other less established therapies.

A subsequent meta-analysis of ACT also found that it was superior to waiting list and placebo controls (effect size 0.68) and treatment as usual (TAU, effect size 0.42) for different disorders. The efficacy of ACT was not significantly different from established treatments (Powers *et al.*, 2009), suggesting that it is a viable alternative which may prove an attractive finding to healthcare providers. Short one-off ACT interventions were as effective as longer term therapy. Eighteen studies were included in the analysis, compared to the 13 in Ost's review. The

methodology of studies was assessed using the validated 'Jadad scale', a widely used tool for assessing RCTs (Petticrew & Roberts, 2006), such a scale better facilitates comparisons of different meta-analyses of therapeutic efficacy. The focus on one model of therapy, allowed ACT to be evaluated in its own right. The authors also note that the current evidence-base is promising, but requires extension and this assertion is consistent with the other systemativ reviews.

Publications which review the evidence for ACT conclude that the intervention is promising (Ruiz, 2010) and that it targets different processes to other interventions (Pull, 2008). These papers are positive in their reporting and are persuasive of the benefits ACT can bring through the synthesis of research across clinical specialties. However, they provide little objective criticism of the research to date. Critical analysis of ACT has occurred in recently published meta-analyses, and this will encourage healthy academic debate and informed clinical practice. All of the articles summarising the efficacy of ACT recommend further research.

1.3.5. The Relevance of ACT to the MDO population

One aim of an ACT intervention is to help people pursue what is personally meaningful to them. Given the earlier discussions about the 'recovery' model and QoL, it is an approach which may provide a framework for a values-focused intervention. ACT is a behavioural treatment that may offer benefits to the MDO population, and its suitability could be surmised from various sources. There is an emerging evidence base for using ACT to treat psychosis (e.g. Bach & Hayes, 2002 and Gaudiano & Herbert, 2006); its applicability could also be inferred from other clinical applications related to experiential avoidance and its philosophical background.

1.3.5.1 The ACT tradition

The philosophical tradition of functional contextualism is relevant to a MDO population because it emphasises understanding the function of behaviour. This understanding benefits the risk assessment process and the provision of psychological interventions. An appreciation of the context and consequences of behaviour is critical to working with this population, because it is their behaviour that causes the greatest concern to others.

ACT promotes the position that people seeking psychological help are not broken, but rather are stuck (Strosahl *et al.*, 2004). This compassionate view is helpful to working with a population characterised by violence and this stance conveys a sense of hope for individuals which should aid the development of therapeutic relationships. Heffner (*et* al., 2003) hypothesised that

treatments reliant on outcome may increase the likelihood of failure. Consequently, ACT's advantage is that it is process orientated therefore relapses are conceptualised differently which may be more compatible with chaotic patient groups, such as MDOs who have had significant experience of failure. Greater levels of disrupted childhoods and other population characteristics, mean that one could hypothesise that experiential avoidance is more prevalent and self-clarity is lower when compared to a non-clinical sample.

1.3.5.2 ACT for psychosis

Psychotic disorders represent the most prominent psychological need among the MDO population (Mair, 2006) in a Scottish Medium Secure Unit. They are characterised by extreme intrusive thoughts outwith conscious control. The frequency, persistence and perceived uncontrollability of a distressing thought are related to the believability of that thought (Purdon & Clark, 1994). Hallucinations can be distressing and their content tends to be abusive towards the individual themselves (Nyani & David, 1996). However, it may be that the prevalent coping strategies employed are counter-productive. Psychotic patients report using deliberate ignoring and distraction methods to suppress their psychotic symptoms (Sukhwinder *et al.*, 1998). Strategies aimed at trying to change or resist voices, can intensify distress (Farhall *et al.*, 2007). Thought suppression can increase the frequency of target thoughts (Wegner *et al.*, 1987). Intrusions associated with higher degrees of social disapproval are more likely to be coped with using avoidance or escape strategies (Freeston & Ladouceur, 1993). Such a consideration is especially relevant to MDOs, because detention in a secure environment could be regarded as indicative of social disapproval, and this possibly could be compounded by shame.

Research regarding ACT for psychosis consists of case studies and two clinical trials. In 2002, an ACT intervention for psychosis was compared with treatment as usual (TAU) in a State Psychiatric Hospital in America (N = 40). TAU consisted of medication, psycho-education and weekly psychotherapy if the individual was hospitalised for more than a few days. The ACT intervention consisted of TAU plus four 50-minute individual ACT-focussed sessions. Within four months of discharge, 20% of the ACT group and 40% of the TAU group had been re-hospitalised. The self-reported believability of symptoms also decreased. At four months, the ACT group had higher levels of symptom reporting, but it was assumed this reflected less avoidance of symptoms. There appeared to be no difference between the two groups in terms of distress and ACT did not help one third of the patients who denied their symptoms (Bach & Hayes, 2002). The results suggested that the effects of ACT were more powerful than TAU.

In 2006, 40 US psychiatric patients with psychotic symptoms took part in a similar trial (Gaudiano & Herbert, 2006). Similarly to the MDO population, the majority of participants were male. Individuals either received an enhanced TAU intervention (psychopharmacology, case management, psychotherapy and milieu therapy) or an ACT intervention (enhanced TAU plus an average of three individual ACT sessions). At the four month follow-up assessment, 45% of the enhanced TAU group and 28% of the ACT group had been re-hospitalised. This would seem to be a fairly dramatic difference, but actually only referred to four people and therefore was not statistically significant. The ACT group showed greater progress, measured by global improvement and social functioning and reduced distress associated with hallucinations. However there was no difference in hallucination frequency or believability between the groups. These results reinforced the previous study's findings that ACT could elicit meaningful change to the lives of this challenging population.

Neither study included participants with substance misuse, but excluding these individuals may limit generalisation because substance abuse is prevalent among people with psychosis and MDOs (Wheatley, 1998). Therefore neither study was evaluated in terms of 'valued living', which is consistently posited within ACT as the criteria by which progress should be measured. Despite small sample sizes, these studies demonstrated that ACT had a significant benefit to this population. A larger sample would facilitate confidence in the generalisation of results and may generate sufficient power to identify other significant effects. The use of rehospitalisation rates as an outcome measure provides powerful support for its introduction to healthcare provision. Another salient outcome measure would have been medication usage, because the use of 'as required' medication is prevalent in inpatient settings and could be considered an example of experiential avoidance because it is used to control negative private events.

A later case study described the subjective improvements made by a young man who participated in a 15 session ACT intervention for his psychosis (Veiga-Martinez *et al.*, 2008). Over the course of the intervention his relationships with his family and friends subjectively improved. His attendance at work increased, and the voices became less frequent and less distressing despite an initial increase. ACT facilitated meaningful changes to his life despite not targeting the frequency and content of intrusive thoughts. This appears to be the only study regarding ACT and psychosis where progress is measured by the truth criterion.

Another case study suggested that ACT is beneficial to those with psychotic symptoms and cognitive deficits. The believability, distress and frequency of one man's hallucinations decreased over the course of an ACT intervention, with distress showing the greatest change (Pankey & Hayes, 2003). Many individuals within an MDO population have cognitive deficits following prolonged substance misuse or traumatic brain injuries, and this is one of the challenges of this population. Future investigation of ACT's efficacy within such a population is warranted.

Research into the efficacy of ACT with people with psychosis is at a preliminary, but promising stage. It is hampered by low participant numbers and case studies should be extended into clinical trials. Interventions delivered within the NHS require an established evidence base. The replication of these findings on a larger scale would bolster the evidence base and support its application within healthcare settings. This represents somewhat of a vicious circle for ACT: the more prevalent it becomes within the health service the more viable large scale research becomes; however, without research it is less likely to be implemented.

1.3.5.3 Experiential avoidance

ACT is designed to treat problems characterised by experiential avoidance. Experiential avoidance appears prevalent amongst MDOs. Their avoidant tendencies are evident in a reluctance to think about distressing memories and established coping strategies, such as substance misuse, self-harm and aggression.

Aggression is a prominent feature amongst the MDO population. One study examined the link between prior experience of interpersonal violence and self-reported aggression in 113 men. The variables assessed included trait anger, PTSD symptom severity, experiential avoidance and emotional inexpressivity; which reflect the avoidance of negative internal events and the suppression of outward signs of emotion. All of the variables independently correlated with aggressive behaviour. Path analysis demonstrated that trait anger was the strongest predictor of aggressive behaviour, but experiential avoidance and emotional inexpressivity were also significant predictors. Avoidant tendencies mediated the relationship between experiencing violence and being aggressive. There are a couple of methodological considerations that may affect the generalisation of these results to an MDO population. The sample appeared to be well-educated with moderate-high incomes which contrasts with the MDO population. Also, the study does not make it clear whether the participants were the victims or perpetrators (or both) of

violence. Overall, the results suggest that targeting experiential avoidance may reduce the likelihood of aggression, and this is highly relevant to clinical interventions in forensic settings. (Tull *et al.*, 2007).

Substance misuse is co-morbid with psychological distress, and experiential avoidance is related to addiction severity (Forsyth *et al.*, 2003) among those receiving treatment for addiction (*N* = 94). While the characteristics of the sample (mainly African American, no psychotic disorders) differ to those in Scottish secure care, the relationship between substance misuse and experiential avoidance would still be applicable. This would suggest that ACT is a viable treatment option.

Research regarding the efficacy of ACT for those with substance misuse is minimal. One study piloted the therapy with three individuals with marijuana dependence (Twohig *et al*., 2007). At the three month follow up, one participant remained abstinent while the other two had reduced their use. This may cast doubt on the efficacyof the intervention, but there were improvements in depression, withdrawal and experiential avoidance for all. It may be that with sufficient power and adaptations to the treatment protocol the approach would be more successful and subject to statistical analysis. If this study could be extended, it would be of value to those working with MDOs because of the prevalence of marijuana use.

An ACT intervention was delivered to those in a substance misuse rehabilitation program to target self-stigma (Luoma *et al*., 2008). Participants (*N* = 88)volunteered to participate in a 6 hour group intervention. Medium to large effect sizes were found for reduction in stigma and shame and improved self-esteem. However, no follow-up data was reported. The group also evolved between delivery and so those participants who participated earlier may have had a different experience to those who participated later, but this data is not reported. Participants were rewarded with a voucher for a department store. While the monetary value of these seems low, in a residential setting they could have a value greater than their monetary worth would suggest and this may have biased the self-report data. It is unclear whether these participants voluntarily sought treatment or whether it was court-ordered, and this information would also be useful. The results are promising and relevant to MDOs because they also have added sources of stigma (mental illness, offending history) and shame, but the intervention did not target substance misuse itself which would normally be the primary treatment aim.

Higher levels of acceptance were found to weaken the relationship between the impulse to drink alcohol and the corresponding action amongst 50 American college students (Ostafin & Marlatt, 2008). The authors defined 'hazardous drinking' as the consumption of 4 or 5 (depending on gender) alcoholic drinks in one evening. However, students live in a subculture where drinking is prevalent, socially supported and is likely to reduce following graduation. The appropriatenes of generalising these results to other populations is unclear. However, MDOs often come from a subculture where substance misuse is prevalent, but for them the behaviours are more longstanding and evident in family history. Further investigation of this relationship could prove very useful with the MDO population.

Self-harm is prevalent amongst MDOs, especially females; and this is often associated with Borderline Personality Disorder (BPD). Anxiety sensitivity may be linked to self-harm behaviour and refers to the belief that anxiety symptoms will have negative (cognitive, emotional or physical) consequences. Anxiety sensitivity is greater amongst those with BPD than those without a personality disorder. The relationship between anxiety sensitivity and BPD was mediated by experiential avoidance (N = 40) (Gratz *et al*., 2008). This finding could suggest that targeting experiential avoidance could affect the presentation of those with BPD, but this suggestion requires empirical investigation.

A randomised pilot trial of DBT and ACT for women who self-harm showed that ACT led to reductions in self-harming behaviour (Gratz & Gunderson, 2006). A sample of 22 women were allocated to TAU (N = 10) or an emotion regulation group (N = 12) derived from ACT and DBT. This group emphasised the process of accepting negative emotion and promoting values-consistent action. Those with psychosis or substance misuse were excluded. Participants were female, predominantly highly educated and they were all resident in the community. As part of the group, participants were encouraged to practice the skills and complete homework in their own time. The group has a positive effect on self-harm, emotion dysregulation, depression, anxiety, stress and symptoms of BPD. These effects were both statistically and clinically significant.

Broadly speaking, the research suggests that ACT could be suitable for this patient group, including those with personality disorder. However no research has directly established their suitability for ACT or evaluated an intervention. The generalisations which can be drawn from these studies are unclear; there were no male participants or people with active mental illness.

Typically, MDOs have lower levels of education, poor literacy, do not complete homework tasks independently and are less motivated to participate in interventions. With these considerations in mind, it would be interesting to see how such an intervention would apply to this challenging population. The first step would be to identify whether the ACT processes that drive psychopathology (cognitive fusion and experiential avoidance) constitute a clinical need.

1.3.6 Summary

ACT belongs to the third wave of cognitive behavioural therapies and interventions seek to change the relationship people have with their distress rather than its form or frequency. The ACT model predicts that people avoid distress. Initially, this avoidance reduces contact with aversive experiences or thoughts; but ultimately it prevents engagement in positively rewarding activities. Instead of pursuing what matters most to them, life becomes about avoiding painful experiences. If lower levels of experiential avoidance do predict success in various domains of functioning, then it could be expected that it would also be related to improved subjective QoL and this possibility will be explored in this thesis.

ACT proposes that certain processes contribute to psychopathology and impede a valued life:

1. **Cognitive fusion**: this refers to the extent to which people behave as though their thoughts convey facts. This prevents them from responding to the thought in a contradictory way.

2. **Experiential avoidance**: an individual's unwillingness to experience distressing private events leads to the use of strategies that actively attempt to prevent their occurrence in the short-term.

3. **Rule-governed behaviour**: People have a set of internalised personal rules that guide their behaviour. These rules can be dysfunctional, determined by social expectations or the desire to please others instead of direct experience. RGB can have positive effects for an individual, but becomes problematic when these rules are rigidly followed to the extent that they interfere with more functional coping strategies or prevent the pursuit of a valued life (Hayes *et al.*, 1999).

Values are fundamental to ACT because they provide guidelines to a personally meaningful life and are intrinsically rewarding. Although values are increasingly recognised as important to clinical interventions, the current evidence concerning them is lacking. In particular, it is unclear whether this focus is empirically justified. The nature of the relationship between these three processes and 'valued living' has not been empirically established. It is anticipated that examining these relationships in a non-clinical population will begin to establish if there is support for this hypothesis, and therefore provide a foundation for future research occurring in clinical populations.

ACT's stance towards psychopathology may provide a way to overcome some of the challenges MDOs present and provide them and professionals with guidance for rehabilitation that they find personally salient. ACT's proposition that experiential avoidance and cognitive fusion are key processes that drive psychopathology appears relevant because behaviours indicative of experiential avoidance (e.g. substance misuse and aggression) appear prevalent in this population. Efficacy studies provide promising results in populations similar to MDOs, but the inclusion criteria used mean that direct comparisons are not possible. Further research is needed to ascertain the applicability of ACT to the MDO population.

The dominant measure of values in ACT is the Valued Living Questionnaire (VLQ, Wilson *et al*., 2010) which measures the extent to which an individual lives consistently with values identified from the authors' clinical practice. The limitations of this were discussed, but most notably there is a possibility that these values may not be intrinsically reinforcing for all; e.g. those with disrupted developmental experiences such as MDOs. Therefore it may be that the part of the ACT model that relates to values is insufficient for clinical use. Incorporating this model with an established model of values such as that presented in the next section, may benefit clinicians' understanding of values and how they present in clinical situations.

1.4 Schwartz's Theory of Basic Human Values

Values are crucial to the ACT model, but there are gaps in the corresponding research: whether this focus is appropriate and whether all values are endorsed by all. Other schools of psychology have also investigated values. Similarly to radical behaviourism, social cognitive theory also views behaviour as contextual and as integrating social, personal and environmental influences. Within this tradition Schwartz investigated how values apply to individuals' lives (Bernard *et al.*, 2003). This model informs understanding of a range of personal values and the conflicts that can arise between them. It has also generated research about the link between values and behaviour. The model has the potential to inform our understanding of how values apply to clinical situations.

1.4.1 Schwartz's Definition of Values

Values are considered essential psychological constructs (Rokeach, 1973). Values are defined as beliefs which 'represent desirable end states' (Schwartz & Bilsky, 1987, p.551) and are transsituational (Seligman & Katz, 1996). Schwartz regarded them as important guiding principles in people's personal lives (Bernard *et al.*, 2003). Values are more abstract than needs, and help to determine goal directed behaviour in the short and long-term. Schwartz assumed that what is considered important by people is determined by their socialisation, upbringing, peer pressure and cultural influences (Schwartz & Bardi, 2001).

Schwartz (1992) identified the main features of values, which are relevant to clinical situations:

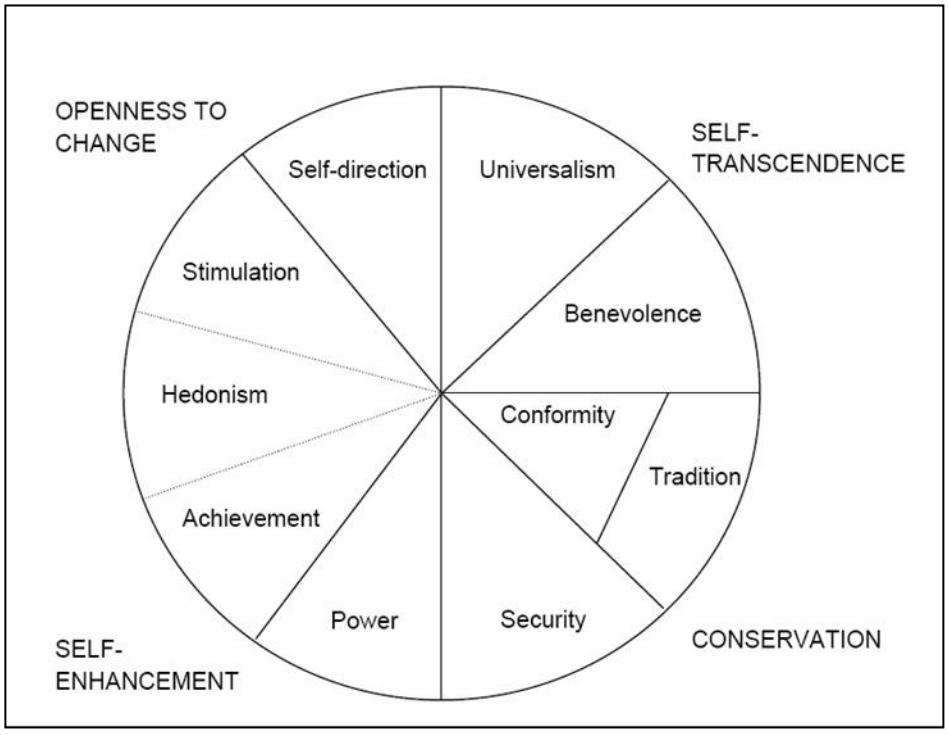
- Values represent beliefs linked to emotion rather than fact and can generate positive or negative affect;
- Values have a motivational component, referring to what people aim to achieve;
- Values are abstract goals and exist independently of specific situations.
- Decisions are influenced by values.

1.4.2 The Structure of Schwartz's model of human values

Within Schwartz's model, values are arranged in a circular structure, and the arrangement indicates which values are considered compatible with each other. Those in close proximity have similar underlying motivations, which are assumed to be the primary organising variable (Schwartz, 2005a). Pursuing an action consistent with one value would be congruent with those adjacent to it and conflicting with those opposite. It is assumed that it is not possible to simultaneously pursue conflicting values.

Each value type is defined by a central motivating goal (Schwartz, 1992) and Schwartz believed that the motivation underlying each value differentiated them. These values affect an individual's focus or attention, how they interpret information and what causes them concern (Schwartz, 1992). Individuals will rank these value types, and this constitutes their value profile.

Figure 3: Schwartz's (1992) model of universal values



People are hypothesised to have one or two central value types that determine their behaviour (Verplanken & Holland, 2002). Schwartz derived 10 value types from a wider pool (Schwartz, 1992):

1. **Self-direction** is defined by independent thought and action. Individuals who value this seek autonomy and independence.

2. **Stimulation** is defined by desiring excitement, novelty and a challenging life. It may reflect a biological need for stimulation and arousal.

3. **Hedonism** is defined by the desire to have pleasure or gratification for oneself.

4. **Achievement** Individuals who value achievement aim for personal success by 'demonstrating competence according to social standards' (Schwartz, 1992, p. 8) which generates access to social and material resources.

5. **Power** is defined by social status, prestige, and the control of people or resources. It exists within a social system.

6. **Security** refers to security for oneself and society. These individuals value safety and stability

7. **Conformity** These individuals value complying with social norms.

8. **Tradition** incorporates a respect or commitment towards the customs of a culture or religion.

9. **Benevolence** reflects a concern for the welfare of those that an individual has frequent contact with

10. **Universalism** is similar to benevolence but refers to all people and includes those unknown to the individual.

These value types can be divided into four higher-order value domains which form two basic conflicts (Schwartz, 1992):

1. Conservation vs. Openness to change (OTC).

2. Self-enhancement vs. Self-transcendence.

The OTC value domain (self-direction and stimulation) incorporates autonomy and a willingness to have new experiences whereas the conservation value domain (conformity, tradition, security) focuses on maintaining the current situation because stability is preferred and customs are upheld (Schwartz, 1992). Those values within the self-enhancement domain (achievement and power) are characterised by self-interest either through the control of people and resources or being viewed as competent and successful. They conflict with the self-transcendence value domain (universalism and benevolence) which emphasise recognising and responding to the needs of others (Schwartz, 1992). The value type of hedonism is thought to share properties of both OTC and self-transcendence and therefore cannot be readily categorised within these conflicts.

Life circumstances affect individuals' exposure to opportunities, including the values a person is able to pursue and the associated rewards and costs (Schwartz, 2005a). Schwartz suggested that people adapt their values to their life circumstances. Thus, those values that can be achieved more readily will be rated as more important and vice versa (Schwartz & Bardi, 2001). However, if values associated with material goods, well-being, or security are blocked their perceived importance increases. This understanding could provide therapists with insight into how values apply to disadvantaged populations.

1.4.2.1 Value profiles

At a cultural level there appears to be a great deal of similarity between value profiles and Schwartz's model of values has been established cross-culturally. Thirteen nations (total N = 7943) were assessed, and there was a .8 correlation between hierarchies from each culture (Schwartz & Bardi, 2001). Benevolence was always the most important value, and self direction and universalism followed. Security, conformity, and achievement were in the middle, and then hedonism. Stimulation and tradition were below hedonism, and power was always lowest (Schwartz, 2007). However, even though the hierarchy suggests comparable priority ratings, the degree of importance attributed to each value differed between samples (Schwartz, 2007) and

individuals (Verplanken & Holland, 2002). The functional difference between the rank and importance of values has not been clearly defined. Most publications describe an overall profile, which suggests that rank order is important; however, the statistical analyses examine importance ratings. It may be that this distinction does not need elaboration, but it can seem confusing to the reader.

Schwartz hypothesised that 'anxiety due to uncertainty in a social and physical world' may influence the structure of an individual's value profile (Schwartz, 2005a, p. 25). This anxiety creates a propensity towards values at the bottom of the structure, i.e. self-enhancement and conservation. He suggested that these people try to maintain the current order or to control threats. Values towards the top of the structure were considered to reflect a relative lack of anxiety, but this hypothesis does not appear to be supported by empirical evidence as yet. This concept of avoiding situations which generate negative emotion, such as anxiety, is similar to the ACT concept of experiential avoidance.

1.4.3 Evidence for Schwartz's model

Evidence for the model initially came from 217 samples from 67 countries (N = 64271) (Schwartz, 2005a). The samples included multiple demographic characteristics and were considered representative of their wider populations. Participants completed the 1988 version of the Schwartz Value Survey (SVS, Schwartz, 1992) and this facilitated the identification of distinct value domains which come to comprise the model.

The SVS consisted of 57 items describing distinct values that were rated according to the extent that they were a 'guiding principle' in the individual's life. It was a direct measure of values and was heavily reliant on abstract thought (Schwartz *et al*., 2001). The SVS found evidence for the model in most cultures, however it did not apply to people from less developed countries, children/adolescents (Schwartz, 2005b) or those educated outside of Western systems that emphasise abstract thought (Schwartz *et al*., 2001). High scores on a measure of social desirability did not seem to affect the extent to which responses reflected those values identified as important in the participants' society (Schwartz *et al*., 1997) and therefore this was discounted as a confounding variable by the author. The Portrait Values Questionnaire (PVQ) was developed to address the criticism that the model was not universal; therefore it is more concrete and shorter. Respondents reported that the PVQ is more concrete and less intellectually

challenging than the SVS (Schwartz *et al.*, 2001). The measure asks individuals to rate their similarity to people with particular goals and aspirations, and from this values are inferred.

While the evidence for this model appears impressive, there are some weaknesses. Firstly, the papers provide insufficient methodological detail to allow replication. The data appears to have been collected as part of large-scale market research; although this method generated large numbers of participants it is unclear whether this sample had an inherent bias in values; for example, whether the act of completing a lengthy survey that was of no benefit to the individual reflected a bias towards avoidance / universalism that was not present in those who declined to participate. Samples are also described as 'representative' or 'near-representative' of a country, but how this was decided is unstated. The model is founded on tools created by the author, but the development of different measures which could independently demonstrate the robustness of the model have been slow to emerge and such measures are required to improve the robustness of the model.

When the model is examined using the PVQ instead of the SVS, some doubt has been cast over whether the structure of the model remains the same. While Schwartz considers that it is faithful to the circular structure (Schwartz & Boehnke, 2004), others have suggested otherwise (Hinz *et al*., 2005). Although they dispute the circular structure, they concur with the concept of two conflicts which they term: self-orientation (achievement, stimulation, power) vs. social orientation (benevolence, universalism, security) and conservation (conformity, tradition) vs. dynamics (self-direction, hedonism). They discounted security and stimulation because their analysis suggested that these values were arranged differently to Schwartz's model. The validity of excluding the variables on this account is questionable, especially as they are values that have been identified as important by participants in the research; however it does provide an alternative conceptualisation.

A large proportion of the research supporting Schwartz's model has focused on correlations or establishing differences between groups. The existence of such relationships has been taken as support for the model's validity. However, the directions of causality have not been established and neither has the ability of values to predict behaviour. The possibility that anxiety organises value structure has been suggested but remains uninvestigated.

1.4.4 Values and personal attributes

Values are hypothesised to be arranged on a continuum, however for research purposes it is more appropriate to conceptualise value types as discrete so that comparisons can be drawn and relationships examined (Schwartz, 1992). The relationships between value types and many variables have been investigated. Men and woman have small but consistent differences in the importance attributed to values (Cohen's d = -.32 to .29), the greatest differences were observed in benevolence and power (Schwartz & Rubel, 2005). Women rated benevolence and universalism as more important than men, and power as less important (Schwartz, 2005).

Correlations exist between several personal characteristics and value priorities. Education is correlated positively with the importance of self-direction and stimulation and negatively with conformity and tradition (Schwartz *et al.*, 2001). However these are very small relationships (.12 to .18), which were observed in an educated sample (South African students); consequently the effect of education cannot be fully established until the sample includes individuals with a broader range of educational experiences. A positive correlation exists between guilt-proneness and self-transcendence (.25), tradition (.14) and conformity (.17) values and the negative correlations with OTC (-.13) and power (-.24) amongst adolescents in school and the army (N = 710) (Silfver *et al*., 2008). The relationships observed for values within the OTC and conservation domains were weaker than those within the self-transcendence and self-enhancement domains. It may be that the emphasis on conformity and discipline in a military environment limits the generalisation of these findings beyond it, as would the age range of the samples who were comprised of adolescents.

Schwartz (1997) discounted the influence of social desirability on value profiles, but it could be argued that such a conclusion by the author of the values model is biased. Unfortunately, there is a lack of research directly examining the relationship between value profile and social desirability. One study, however, has attempted to examine this relationship. Fisher and Katz (2000) hypothesised that there should be a positive correlation between both factors because they are both concerned with what is desirable. They suggested that the absence of such a relationship would suggest that either or both constructs had not been adequately addressed. They approached customers of a US telephone company and asked them to complete the List of Values (a derivative of the Rokeach Value Survey frequently used in market research) and a shortened version of the Marlow-Crowne Social Desirability Scale. The measures were administered in a postal survey to which there was a 21% rate, whether this influenced their

findings is unclear, because some may argue that those who place less importance on social desirability would be less likely to return postal questionnaires. Participants were predominantly white (76%), female (59%) and educated beyond high school (77.3%). Small effect sizes (mean correlation = .12) were found for the correlation between social desirability and the endorsement of values within the scale. All the correlations were positive and statistically significant. However, despite the authors' assertions, the small effect sizes obtained suggest that any relationship was minimal, therefore while it was a relevant consideration it did not appear to be a key variable. It should be noted that the measure of values was not compatible with Schwartz's model and so the nature of these relationships may vary when this model is employed.

These studies generally have large sample sizes, but the effect sizes obtained tend to be small, which could suggest that although these differences exist, factors other than these values may be more influential. The use of correlational analysis means that causality has not been established and the findings remain an observation of trends. Most of the research regarding factors which correlate with values has occurred in the realm of social psychology but the findings summarised suggest that there is a relationship between values and personal characteristics and behaviours. However the relationship of values and psychopathology remains unclear.

1.4.5 Values and behaviour

Schwartz recognised that even if a value is judged to be personally important, the individual may not behave correspondingly, criticisms of this model have included the lack of evidence regarding the extent to which values directly affect behaviour. Any relevant research has primarily been assessed with correlations and so can only indicate the possibility of a relationship. Studies have demonstrated significant correlations with a range of self-reported behaviours including voting (Barnea & Schwartz, 1998) environmentally friendly behaviour (Karp, 1996) and occupational choice (Schubot *et al.*, 1995) but these refer to self-report rather than behavioural observations which may be a measure that is less reflective of social desirability and more reflective of the actual relationship. Alcohol use appears to be the most clinically relevant behaviour that has been measured. It had a positive correlation with the OTC domain and hedonism, but a negative relationship with the conservation domain (Schwartz *et al.*, 2001); however, these small effect sizes (.09 to .12) cast doubt on the extent to which values directly influenced the behaviour.

Bardi and Schwartz (2003) examined the consistency of actions with values. A questionnaire based on Schwartz's model of values and was given to 102 participants. They were asked to rate the frequency of certain behaviours considered consistent with each value type. Behaviours were rated by participants, their peers and partners. Using other raters was a valuable addition to the protocol which may mean that the findings are more robust than if it was solely based on self-report. Some values appeared more strongly related to behaviour than others. Stimulation and tradition value types had the strongest relationship with their relevant behaviours. Hedonism, power, universalism and self-direction had a moderate relationship with behaviour; and security, conformity, achievement and benevolence had a marginal relationship with consistent behaviours. Two reasons were suggested for why people's actions reflect their values. The first was that people required a sense of consistency between their values and behaviour, and the other was that values consistent action is assumed to be rewarding to individuals (Bardi & Schwartz, 2003). The values that related most strongly to behaviour came from different domains, which could suggest that the proposed conflicts are driven by a few powerful values within the domains. Further research examining the links between values and behaviour is needed, the use of a scale which is not explicitly based on the author's model may illuminate this relationship.

Although the exact nature of the relationship between values and behaviour has yet to be established, several factors have been hypothesised to affect this relationship. These other influential factors need to be understood. In reviewing previous research Maio *et al*. (2001, p.104) suggest that 'situational forces can overwhelm values'. Firstly, the more behaviour corresponds with social norms, the weaker its association with a value (Bardi & Schwartz, 2003). Secondly, to influence choices and behaviour, values must be 'cognitively activated and should be central to an individual's self-concept' (Verplanken & Holland, 2002, p.443). A meta-analysis concluded that the success that people had with achieving goals was greater when those goals reflected their personal interests rather than those inflicted upon them by external sources (Koestner *et al.*, 2002). Values that are considered self-defining, tend to be more predictive of behaviour than those values which an individual considers to not be central to their self-concept (Verplanken & Holland, 2002).

Finally, it has been suggested that values are maintained by strong emotions and past behavioural experience, rather than a reasoned argument. People have stronger affective support for their values than cognitive support (Maio *et al.*, 2001) but a lack of cognitive support was

hypothesised to weaken values. The analysis of reasons underlying values, especially those associated with conservation, OTC and self-enhancement, can change the importance attributed to them (Bernard *et al.*, 2003). Providing salient reasons for a value encouraged people to act in accordance with it, even when it was in their material interest to act in opposition (Maio *et al.*, 2001).

In terms of clinical applications, cognitive support for values could occur from asking people to explore their values and why they are important. Maio (*et* al., 2001) suggested that the degree to which behaviour was consistent with a value was directly related to how concrete and rational the value was to the individual. Values are an abstract concept and when people are distressed they may seem distant and irrelevant. Clinical explorations of values could make the concept more immediate. It could be that the act of discussing values constitutes an important part of behaviour change within a therapeutic setting. This would be relevant to cognitive models of therapy, ACT and the GLM.

1.4.6 Summary

Schwartz's model of values proposes a universal structure of 10 value types. These value types can be divided into four value domains which represent two conflicts: self-transcendence vs. self-enhancement and conservation vs. OTC. It is suggested that it is not possible to simultaneously pursue conflicting value domains.

Although established from different theoretical assumptions, the definitions of the term 'value' are compatible, but are more explicit within Schwartz's model. The ACT literature incorporates each aspect of the definition proposed by Schwartz, but it has not done this in as succinct a manner. Schwartz's (1992) model therefore provides the potential to broaden our understanding of individuals' values; because it is based on a universal model of values not founded on clinical populations. It is this definition of 'value' that will be employed in this thesis

Values influence behaviour. Although the importance of a value is predominantly related to associated affect, identifying self-defining values and providing supportive arguments strengthens them. This suggests that a clinical intervention focused on values may increase the likelihood of valued action. However, these observations would be more compatible with a traditional CBT model than an ACT one which would focus on the experience of the intrinsic reinforcement.

Schwartz hypothesised that one factor affecting value profiles is anxiety. He proposed that individuals who were anxious would avoid making changes in their life because such changes exacerbate anxiety. Therefore greater importance is placed on those values at the bottom of the structure, however this assumption has remained theoretical with little empirical support. Research suggests that the importance attributed to each value may differ between populations and individuals, but the overall profile remains similar. However, this has not been explored in relation to psychopathology. When considering the potential application of values work to clinical settings, further exploration of this is crucial. It is therefore hoped that by examining both Schwartz's model of values and the ACT model, understanding of any relationship can be increased.

1.5 Revisiting Mentally Disordered Offenders

The challenges presented by MDOs have already been described. They are a complex population with needs that fall into at least two categories: major mental illness and offending behaviour. These behaviours are problematic to the individual and society. Improving our understanding of what drives these behaviours and difficulties is crucial to identifying appropriate treatments. However, unlike other clinical settings, the need for behaviour change is not always identified by the individual and may be mandated. An awareness of what is important to them is crucial to collaboratively working towards their future. However, the evidence supporting a values focus in clinical situations in general is lacking; in forensic services it is consistent with the GLM, but the GLM predetermines what is considered important. It seems possible that those with chaotic lifestyles may identify different values as important to those from other populations, but this has not been explored. This section will attempt to explore how the current literature concerning values could relate to an MDO population.

1.5.2 Values and Mentally Disordered Offenders

> The construct of values informs both what is considered to be personally meaningful and socially acceptable, and in this way values determine the balance between individual self-interest and community safety (Day & Casey, 2009, p.109).

Often, preconceptions about the values of offenders are proposed as possible flaw in ACT's suggestion that interventions be guided by individuals' values. However, working with values could be highly relevant to an MDO population and should not be dismissed without cause. In particular, the applicability of values-focused work can be seen in three areas. Firstly, values can help to identify therapeutic goals (Strosahl *et al.*, 2004) which appear more salient than those selected by professionals; this may improve engagement. Secondly, values are considered to underlie attitudes and within structured risk assessments, antisocial attitudes are explicitly identified as a dynamic risk factor (Webster *et al.*, 1997). Finally, values are assumed to influence behaviour and it is the behaviours of this population which cause concern.

'There is a paucity of empirical research in this area which is surprising if, as suggested here, changing values is an important part of the process of changing anti-social behaviour' (Day & Casey, 2009, p.236). While acknowledging the lack of research, this quotation assumes that MDOs have different values to others, but this has not been empirically established. Violent

offenders demonstrate impulsive behaviour (Barratt, 1994) and seek immediate gratification, however, this tendency could interfere with engagement in their rehabilitation because long-term goals are emphasised which may appear inconsistent with their views. Encouraging behaviour within a personally meaningful values framework may increase the salience of rehabilitation goals.

There are indications that this area of research is receiving more attention. One reason for the previous lack of research may be that these individuals find it difficult to identify their values because of previous experience. 'People who are raised in chaotic families, in which life was unpredictable and often disappointing, may avoid constructing valued futures in order to avoid more loss and pain' (Luoma *et al*., 2007, p.16). An inability to identify one's own values would impede the process of 'valued living'. Avoiding personally important values serves a protective function from pain and distress; but it also generates more distress because individuals are unable to have the life they want. This could be construed as leaving an individual in a 'no win' situation.

This population is regarded as controversial. Discussions in the media about MDOs often imply that they are fundamentally different to society and use emotive language that perpetuates this view. This increases the stigma faced by this population and this stigma may further reduce opportunities for their reintegration into society. Focusing on the values of this population may seem an unusual approach to take, but the possibility exists that this approach could indirectly generate a reduction in risk and reduce stigma. To advocate 'valued living' in this population is not to suggest that this population be allowed to act in whatever way they want, rather it would be to help them achieve their goals in a way that is less destructive, more socially acceptable and in conjunction with services.

The process of implementing values work with this patient group raises questions for clinicians; such as what are the values of this population? How do they conceptualise and pursue them? Is values-focused work appropriate for these individuals? Given the range of needs and personal histories of these patients it is appropriate to ask whether the process of 'valued living' is an appropriate treatment goal and this study hopes to begin to explore this issue.

There appears to be one central question that requires clarification:

Do MDOs have a different set of values to the general population or not?

There is little research that examines this directly. Evidence associated with Schwartz's model would appear to suggest that offending behaviours are associated with particular value profiles. Conversely, the Good Lives Model (GLM) suggests that offenders have the same values as others. Evidence for either argument is sparse because this area and population has received insufficient empirical attention.

1.5.2.1 Evidence suggesting the offenders have different values to the general population

Schwartz's model has not been explicitly applied to offenders in published research. One unpublished thesis found that offenders (without mental illness) thought about values in more concrete terms than the general population (Maio, personal communication, 19/11/09) but how this would affect behaviour is unclear. One possibility is that the emotional and transsituational features of the value are not as clear to offenders, consequently they do not provide the same degree of general guidance for behaviour; instead, values are conceptualised in a more limited fashion.

Although it has occurred with a different population, some published research could be considered relevant to an MDO population, particularly that which considers developmental factors and antisocial decisions and characteristics. While this evidence discusses traits associated with offending behaviour, it has not incorporated the added dimension of mental illness or a population with offending behaviour. Therefore the relevance of this research is inferred.

Mikulciner (*et al*., 2003) investigated a possible link between attachment style and the importance attributed to self-transcendence values. He conducted three studies to demonstrate that students primed to secure attachment styles were more likely to endorse self-transcendence values than those primed for positive affect or an anxious/avoidant attachment style. Attachment avoidance also correlated negatively with universalism. MDOs are more likely than healthy and psychiatric control populations to have an insecure attachment style (Levinson & Fonagy, 2004), and on the basis of Mikulciner's research it could be that this would predispose them to self-enhancement values; however, the extent to which his findings can be generalised to MDOS is unclear. Mikulciner's samples were comprised of students with a mean age of 25, were predominantly female, and were also highly educated. Therefore, the demographic characteristics of this sample are different to a MDO population which is predominantly male

and has poor literacy (McMahon *et al.*, 2004). It may also be that his sample had an inhertent bias towards the self-transcendence value domain because participation was voluntary and unrewarded, which may indicate a pre-disposition towards helping others. It is commendable that Mikulciner *et al*. altered the methodology slightly between each study so that they could be confident in their findings; however, it is a shame that they limited their research to self-transcendence values and so the impact of accacthment on other value domaiuns was not been explored.

Martinez and Garcia (2008) explored the relationship between parenting style and the values endorsed by a sample of Brazillian adolescents (N = 1198, aged 15-18). They found that adolescents raised by parents with an authoritative or indulgent parenting style placed greater importance on self-transcendence and conservation value domains than those form neglectful and authoritarian families. This was a correlational analysis and so the extent to which partenting style caused values was not established. However, it is interesting to note the relationships observed in this population, especially as clinical experience would suggest that the MDO population tends to have a prevalent history of neglect at a young age and of receiving inapropriate forms of discipline. Withhin this study there was a sufficuient sample size to inspire confidence in the results obtained. Nevertheless. the demographic characteristics of this population mean that caution sould be taken when applying these findings to an MDO population.

In the absence of directly relevant research, these two studies may indicate that an MDO population would place less importance on self-transcentdece values because of developemtnal experiences. It is not possiblt to hypothesise about the relationship between these factors and other values domains because neither study investigaed the whole range of values proposed within Schwartz's model.

In terms of the characteristics associated with offending behaviour, offenders tend to feel bored more easily than the general population and will 'search for new experiences in unconventional ways' (Herrero & Colom, 2008, p.203). This tendency towards feeling bored easily and thrill-seeking may suggest that the values of stimulation or hedonism would be more pertinent to this population.

Values have also been found to be linked to ethical decision making amongst Australian law students (Palermo & Evans, 2007). Participants were asked to complete Rokeach's Value Survey and the indicate how they would respond to a variety of ethical dilemmas that could be encountered in their future working practice post-qualification; for example whether they would conceal insider trading or undertake pro-bono work. This study concluded that those whose dominant values were related to personal achievement were more likely to act in ways to their own advantage, even if these actions opposed social norms, 'Personal achievement' has since been conceptualised as within the self-enhancement domain of Schwartz's model (Schwartz, 1992). This finding could strengthen the hypothesis that self-enhancement values would be important to MDOs, whose offending behaviour could be assumed to reflect a lack of concern for the welfare of others. However, there are a number of weaknesses in this study that mean that the results should be interpreted with caution. The sample comprised of 703 law students, which represented an 18% response rate because 4000 were invited to participate. The impact of this low response rate on the findings was not discussed, but it may be that this sample is not representative of the population examined. 60% of the sample was female and the ages ranged from 18 to 25; the actual distribution of ages is not reported but these characteristics and the level of education hinder the comparison of this population to an MDO population. The authors made very little reference to relevant literature and employed a measure of values that has rarely been used since Schwartz developed Rokeach's work and this could reduce its relevance to contemporary research concerning values.

Empathy could be considered another characteristic relevant to offending behaviour, especially in individuals with a history of interpersonal violence. Trait empathy in Finnish students was positively related to self-transcendence and negatively related to self-enhancement values (Myyry & Helkama, 2001). Overall, small effect sizes were obtained. The relationships observed were correlational and so it was not possible to ascertain which factor underlies the other. When the sample was subdivided by gender, these effect sizes were of a moderate size for male participants, but this observation is not fully discussed by the authors. It would appear to suggest that the impact of empathy on values is stronger in male participants. Whether these moderate effect sizes would generalise to other populations in Scotland has not been established, because the sample were predominantly in their third year of university, had a mean age of 25 and resided in urban Finland.

Jaari (2004, as cited in Day & Casey, 2009) explored the relationship between Schwartz's values, valuing honesty and respecting moral norms. He found that self-transcendent or conservation values were positively related to valuing honesty and having a respect for moral norms, while the self-enhancement, OTC value domains and hedonism had a negative relationship. Self-enhancement value domains correlated positively with autocratic behaviour, while self-transcendence had a negative relationship (Schwartz *et al.*, 2001). Vengence attitudes and an orientation towards social dominance correlate positively with the importance attributed to power and hedonism value types (McKee & Feather, 2008). Consistent with other research regarding Schwartz's model, the effect sizes were small-moderate. When considering his findings (see p.71) in light of previous reasearch, Silfver (*et al*., 2008) concluded that 'in general, self-transcendence and conservation values seem compatible with prosocial tendencies, whereas self-enhancement and openness do not' (p.69). However, he inferred prosocial behaviours from attributes such as greater empathy and guilt-proneness rather than research that incorporated a measure of criminality, prosocial or antisocial behvaiour. It is therefore a possibility that he and other researchers have come to conclusions that their data does not support.

It is challenging to establish how this research could inform clinical practice with MDOs because studies often report results at a value level. This generates cumbersome data and the use of domains might be easier to translate into clinical practice. Within this research there is no indication of causality or mediating factors; however the relationships described are interesting. Small to moderate effect sizes were found, which suggests that 'values' may not be the only relevant variable. The variables investigated appear relevant to MDOs and so it could be inferred from this research that a certain value profile exists among MDOs, with self-enhancement being more important and self-transcendence being less so.

1.5.2.2 Evidence suggesting the offenders have the same values as the general population

The GLM is based on the assumption that offenders have the same values as the general population but that the methods they employ to realise them lead to offending behaviour. It proposes a list of 'primary goods' derived from evolutionary theory, practical ethics and philosophical anthropology (Ward, 2002). Although the primary goods identified were collated from relevant literature, they were not generated from the target population. Therefore it remains possible that offenders themselves are unaware of the personal relevance of these goods or that they gravitate towards primary goods that are not included in this model. Although the model is becoming more widely used in forensic settings, its underlying assumptions remain untested, which is a significant criticism of the model. There is anecdotal evidence to suggest that it is efficacious and that the assumptions it is founded on make sense clinically. However, the experimental evidence associated with its development is lacking.

The model also lacks a treatment protocol. Instead, professionals use the model as the foundation and framework for developing treatment plans. Typically, interventions follow a CBT model, but a therapist's clinical orientation would determine the interventions used. Consequently, the implementation of the model may vary between services. Structured methods to operationalise the model into clinical interventions are necessary if it is to become more widely used, and its efficacy needs to be assessed. Day and Casey (2009) suggested that Acceptance and Commitment Therapy (ACT) may provide the opportunity to operationalise the GLM. They suggest that ACT could help offenders to identify their values and consistent goals, and increase their abilities to pursue these objectives appropriately. As well as informing the question of whether MDOs have different values from non-clinical populations, this thesis hopes to begin to explore the suitability of ACT interventions to an MDO population.

1.5.3 Summary

As has been presented, it is suggested that developing a values-focused intervention may help to increase the engagement of the MDO population with the professionals involved in their care. Before values-focused interventions are considered, the values of this population need to be established, as does the possibility that the values of MDOs are different to other populations. This knowledge would provide a broad context in which such interventions could occur.

Whether the MDO population has different values from the general population has yet to be established. Some research suggests that attributes related to offending behaviour (e.g. empathy, valuing honesty) or mental illness (e.g. attachment style) could be associated with value profile (Silfver *et al*., 2008 and Myyry & Helkama, 2001). However, the Good Lives Model (GLM) assumes that their values are the same. Although there is a lack of research in this area, the existing evidence base surrounding Schwartz's model suggests that those values endorsed by individuals with characteristics that could be considered consistent with offending behaviour are different to those without these characteristics. The GLM's assumption that what is important to offenders is also important to non-offenders, remains an assumption, and therefore it seems reasonable to suggest that there is a difference. Given the link between values and behaviour, an awareness of the values of this population is crucial and may impact upon risk management and patient well-being.

1.6 Rationale for the current study

The concept of guiding interventions by values seems intuitively valid and is concordant with cultural norms and the. current political context. However the scientific justification for this requires further investigation. This research aims to begin to broadly examine whether this orientation could benefit individuals and improve their well-being and QoL. By investigating these relationships in a non-clinical population, it is hoped that this will increase our understanding of these relationships in those without mental illness. Investigating a non-clinical population should provide a baseline for future research with clinical populations

The research presented in chapter one has highlighted the need for a greater understanding of how values can inform clinical situations. ACT is one therapeutic approach that provides a values-focused framework. The links between psychopathology, cognitive fusion, experiential avoidance and rule-governed behaviour continues to be the focus of ACT-related research. However the nature of the relationship between these processes and 'valued living' is currently unclear, although the ACT model would suggest that for those individuals in whom these processes are evident, the extent of 'valued living' will be lower. Therefore this thesis seeks to begin to explore the relationship between 'valued living' and those psychological processes proposed within ACT.

In order to expand knowledge about the role of individuals' values, this research will incorporate Schwartz's model of human values. Both models have similar definitions of what constitutes a value and recognise that values are transsituational, guide behaviour and provide reinforcement and are therefore considered compatible. Schwartz's model has the potential to expand our appreciation of how values apply to clinical situations because it formally incorporates a broader range of values than those proposed in ACT. It also provides a clearer and more explicit definition of the term 'value', that is endorsed within the ACT literature, and this definition will be adopted in this thesis, . Those with lower psychological flexibility tend to attempt to control the presence of negative emotion, such as anxiety. Anxiety is hypothesised by Schwartz to be one factor which affects an individual's value profile. However, his definition of this (see p.45) is similar to the ACT concept of experiential avoidance (see p. 69). Therefore the relationship between these values and processes which facilitate psychopathology will also be explored.

The lack of directly relevant previous research renders this research an exploration of the questions raised. To begin this exploration, study 1 will focus on a sample representing a non-clinical sample, thereby attempting to establish how these processes operate in those without psychological distress and whether a focus on values could be appropriate to clinical situations.

MDOs represent a complex, challenging and stigmatised population who are often assumed to be fundamentally different to the rest of society. They have multiple needs related to mental health and offending behaviour, including histories of interpersonal violence. They are difficult to engage and often they are a population assumed to represent a flaw in the promotion of values-focused research. It is therefore important to investigate the applicability of such interventions to them. Study 2 will explore whether this population has a different value set from the non-clinical sample, the sparse research in this area would suggest that this is possible. Improving the QoL of this population has been identified as clinical goal that would improve well-being and indirectly reduce risk. ACT is one model which may facilitate this by its focus on values, and it is also consistent with the Good Lives Model. To identify whether ACT would be a suitable intervention study 2 will also explore any differences in QoL, experiential avoidance and cognitive fusion between this population and the non-clinical sample, any differences may inform treatment needs.

As well as the interaction between values and the psychological processes described, this research hopes to generate a preliminary understanding of how individuals perceive their values and the factors that affect whether values are pursued or not. Study 3 will explore peoples' perceptions of their values, the extent to which they believe they chose them to be meaningful and the factors that maintain them.

1.7 Research Questions and Hypotheses

1.7.1 Study 1

Research question 1: Is maintaining a focus on values appropriate to clinical interventions?

- **Hypothesis 1**: Cognitive fusion, experiential avoidance and psychological distress will correlate negatively with the process of 'valued living'.
- **Hypothesis 2**: The consistency with which someone lives in accordance with values that are personally important will correlate positively with their QoL.

Research question 2: What is the nature of the relationship between an individual's value profile and the processes that contribute to 'valued living'?

- **Hypothesis 3**: Cognitive fusion, experiential avoidance and psychological distress will correlate negatively with the OTC and self-transcendence value domains.
- **Hypothesis 4**: Cognitive fusion, experiential avoidance and psychological distress will correlate positively with conservation and self-enhancement value domains.

1.7.2 Study 2

Research question 3: Do MDOs differ from the non-clinical sample in terms of their values and the processes that contribute to 'valued living'?

- **Hypothesis 5**: MDOs will rate the self-transcendence value domain as less important than the non-clinical sample.
- **Hypothesis 6**: MDOs will rate the self-enhancement value domain as more important than the non-clinical sample.
- **Hypothesis 7**: MDOs will not differ from the non-clinical sample in terms of the importance attributed to conservation or OTC.

- **Hypothesis 8**: MDOs will have a different overall value profile from the non-clinical sample.

- **Hypothesis 9**: MDOs will differ from HC's in terms of the processes (distress, avoidance, cognitive fusion) that influence 'valued living', and extent to which they live in accordance with their values.

1.7.3 Study 3

Research question 4: An exploration of the perceived origin and factors which maintain individuals' values.

Participants will be asked about their values, the origins of these values and the factors that maintain them. As this constituted an exploration of these factors, no specific hypotheses were generated in advance.

2. Study 1

Investigating the relationship between values and psychopathology

2.1 Method

2.1.1 Design

The study employed a cross-sectional internet based design and used correlational methods for analysis.

2.1.2 Ethical Considerations

This research received ethical approval from Lothian NHS Research and Ethics Committee (Appendix 2), and NHS Lothian Research and Development Offices (Appendix 3).

Various ethical considerations were addressed in the design of the research:

- Distress.

  Participation was unlikely to provoke distress within participants, but they were advised to contact their General Practitioner if it did.

- Confidentiality.

  The confidentiality of all participants was maintained. No identifiable data was collected from this sample. Although their date of birth and gender was requested, this information was considered insufficient to identify individual participants. For the purposes of data collection, each participant was allocated a participant number. The Bristol Online Survey (BOS) tool stored participants' responses as they entered the information. This information is stored securely for a limited period of time and could only be accessed by the researcher using secure login details. All of the e-mail addresses provided by potential participants were deleted after they had been invited to take part.

- Pressure to participate

  Individuals were asked to participate in an online survey. Therefore participation occurred out with the presence of the researcher. It was hoped that this would prevent undue pressure to participate and minimise inconvenience.

2.1.3 Inclusion / Exclusion Criteria

The inclusion criteria were:

- British nationality
- Over 18 years of age.

The exclusion criteria were:

- If an individual had been absent from work in the preceding year and they attributed the cause of this to mental health problems.

  This was to minimise the likelihood that this sample would include those who had clinical levels of psychological distress. It was assumed that this criterion would act as a rudimentary indicator of whether a person's functioning was significantly impaired by mental health problems. Other reasons for absence from work (e.g. physical health problems or unemployment) did not constitute an exclusion criterion.

- Under 18 years of age.
- Possession of a criminal record (excluding parking and speeding offences).

2.1.4 Power Analysis

A prospective power analysis provided guidance about the necessary sample size. No previous research has examined these hypotheses or the relationships between these variables, therefore related research was used to inform the power analysis.

A moderate to large effect size was detected in the correlation between psychological flexibility and life satisfaction (Dempster, 2009) amongst a community sample and a moderate effect size in the correlation between levels of acceptance and 'valued living' amongst individuals with psychosis (Weinburg, 2009). A moderate effect size was also found when the relationship between QoL and acceptance amongst elderly people living in the community was examined (Butler & Ciarrochi, 2007). Therefore similar moderate effect sizes were expected for this study, which also employed a correlational design with similar measures. In order to detect moderate effects at an alpha level of 0.05, and a beta value of 0.8, Cohen recommends recruiting 64 participants (Cohen, 1992).

2.1.5 Participants

In study 1, a convenience sample was recruited to be representative of a non-clinical sample. These individuals were recruited from two sources. The first consisted of individuals who used local leisure facilities. They were approached and asked if they would consent to be sent information about the study. The second source was friends, acquaintances and colleagues of the researcher. In order to reduce the likelihood that this sample would be biased by those familiar with psychological models and theories, the invitation was not sent to current colleagues.

All individuals were sent an e-mail (Appendix 4) that contained a broad outline of the study and the website where the information sheet (Appendix 5) and survey could be accessed. Each individual was asked to send details of the study to three other people. By using this 'snowball sampling' technique it was hoped that an adequate number of participants would be obtained.

2.1.6 Measures

2.1.6.1 Demographic Information

The demographic information was recorded as part of the WHOQOL-BREF. This included age, gender, marital status, level of education and whether the individual considered themselves to be unwell.

2.1.6.2 World Health Organization Quality of Life – Brief Form (WHOQOL-BREF, The WHOQOL Group, 1996; Appendix 6)

The WHOQOL-BREF was derived from WHOQOL-100. The WHOQOL-100 is a cross-cultural measure of subjective quality of life (The WHOQOL Group, 1998). It measures subjective quality of life in relation to the definition proposed by the World Health Organisation: an 'individuals perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns' (The WHOQOL Group, 1995, p. 1405). The measure is comprised of 100 questions assessing quality of life in a range of domains (physical health, psychological, social relationships and environment). Items are assessed by multiple choice and generate a domain score.

The WHOQOL-BREF is shorter and therefore considered more appropriate for use in research. It contains 26 items that assess subjective quality of life across the same four domains, as well as general quality of life and general satisfaction with health. Domain scores generated by the WHOQOL-BREF have a high correlation (>.89) with the same domains in the WHOQOL-100.

It has been found to have good internal consistency with Cronbach's alpha between .66 and .8 for the four domains. It is able to discriminate between 'well' and 'ill' individuals ($p<.01$). The test-retest reliabilities for the domains range from .66 to .87 and are therefore relatively stable (The WHOQOL Group, 1998).

On occasion researchers have compiled overall scores for the whole measure (Jamison *et al*., 2007; Saloppe & Pham, 2006). Considering the research questions within this study, it was appropriate to calculate the total raw score by adding the domain scores together.

Due to copyright considerations, permission was sought from the author to administer this measure in an online format (Appendix 7).

2.1.6.3 Portrait Values Questionnaire (PVQ) (Schwartz et al., 2001) (Appendix 8)

The original measure of an individual's value profile was the Schwartz Value Survey (SVS) (Schwartz, 1992) which has already been described (p. 47). The PVQ was developed as an alternative, less abstract measure of values.

The PVQ consists of 40 descriptions of people, where the description focused on the hypothetical person's goals and aspirations e.g. 'It's very important to him to show his abilities. He wants people to admire what he does'. The individual then makes a judgment of how similar this 'person' is to them, using a six point scale. Answers vary from 'not at all like me' to 'very like me'. From these judgments, the respondent's values are inferred. It is therefore considered a more concrete measure of values which requires less abstract thought, and the language is simple enough for an eleven year old English speaking child to comprehend. Using a concrete measure of an abstract concept which is easily understood by respondents, means that this measure should be suitable for those who have not completed formal education; such as the MDO population who form part of study 2.

The validity and reliability of the PVQ was initially assessed amongst an Italian sample (N = 5870) (Schwartz *et al*., 2001) and later a cross-cultural one (N = 7480, Schwartz, 2005b). The PVQ was found to discriminate between the 10 values and results supported the theorised structure of values. The PVQ has less internal consistency than the SVS, probably because it is a shorter measure. When the test-re-test reliability was assessed (after two weeks) the importance attributed to most values remained the same, but conformity became more important and

security less so. It was then administered to a Black South African sample (N = 2000), because the SVS had not previously identified evidence for the model in this sample. In this sample, the security value was subsumed into the self-transcendence value domain, which was hypothesised to relate to historical factors. The two overall conflicts were identified in this sample, and the PVQ was considered an improved measure for this population (Schwartz *et al*., 2001).

Comparisons of the two measures suggest that they both reflect the model. Value hierarchies of samples are the same regardless of the method of measurement. There was a .95 correlation between the two measures. The Cronbach alpha was obtained for each value in both measures to ascertain the measures' reliability. This ranged from .37 - .79 for the SVS and .45-.76 for the PVQ. Those items assessed with less reliability varied between the measures. On the whole, the PVQ has greater internal consistency (Schwartz *et al*., 2001) and all alphas for the PVQ are above .7 except for tradition (Schwartz, 2005b). It would seem that this model is supported by two different measures. While some cultures identify slightly different values, the value domains appear to be universal (Schwartz, 2005).

The PVQ is normally scored to ascertain the relative importance of each value type to individuals. This would provide information about the 10 value types and construct a value profile. However, the research question in study 1 is concerned with value domains. Therefore the data was scored in terms of these domains. Higher scores represent the greater importance of that domain.

2.1.6.4 The Cognitive Fusion Questionnaire (CFQ13; Dempster, 2009; Appendix 9)

The CFQ13 is a recently designed measure of the extent to which an individual is 'fused' with their thoughts. It has good internal consistency (Cronbach alpha of .86). This measure has demonstrated a coherent factor structure in two community samples and correlates highly in the expected directions with measures of mindfulness, thought control strategies, avoidance and life satisfaction (Dempster, 2009). It has good test-retest reliability of .79 (Gillanders & Bolderston, 2010).

It is a 13 item questionnaire that requires an individual to rate their experiences of their thoughts on a 7 point Likert scale. Example questions include 'I get so caught up in my thoughts that I am unable to do the things that I most want to do' and 'I get upset with myself for having certain

thoughts'. It provides a total score, with a higher score indicative of greater cognitive fusion and is appropriate for use in clinical and non-clinical populations.

2.1.6.5 The Acceptance and Action Questionnaire II (AAQ-II; Bond et al., 2009; Appendix 10)

The AAQ-II is a key measure within ACT literature which assesses experiential avoidance. It is derived from the AAQ, but the authors now recommend the use of the AAQ-II (Bond *et al.*, 2008). It is suitable for use both in clinical and non-clinical populations. It has good reliability (mean alpha of .83) and test-retest reliability between .80 and .78 (Bond *et al.*, 2008). It is a 10 item questionnaire which requires individuals to rate their experiences of their emotions on a 7 point Likert scale. Example questions include 'I'm afraid of my feelings' and 'I worry about not being able to control my worries and feelings'. It yields a total score. In previous research the AAQ-II has been scored positively and negatively. In this study, it has been scored negatively, with higher scores indicative of greater experiential avoidance and less acceptance.

2.1.6.6 The Valued Living Questionnaire (VLQ; Wilson et al., 2010; Appendix 11)

This is the predominant ACT measure of 'valued living', and is suitable for different populations. It requires individuals to consider various domains of 'valued living' (family, intimate relationships, parenting, friendships, work, education, recreation, spirituality, citizenship and physical self-care) identified from the authors' clinical practice. For each domain participants are asked to rate the importance of the value to them, and the extent to which they have lived consistently with it in the preceding week. Each scale is scored out of 10. It therefore measures the ACT concept of 'valued living'.

The psychometric properties of the VLQ were investigated (Wilson *et al.*, 2010) using a sample of US students (N = 57). It was found to have good internal consistency, with the importance domain generating a Cronbach alpha of .65 and consistency, .74. The test-retest reliability was also assessed and found to be good (.75). It is considered to have good content validity because it is derived from clinical experience. This measure correlated in the predicted direction with a range of domains including QoL, mental health and social functioning. However the authors acknowledge that a lack of measures solely assessing the process of 'valued living' renders it difficult to fully assess this measure's validity (Wilson *et al.*, 2010). This measure provides additional information to the PVQ, because it assesses the process of 'valued living' instead of simply describing the individual's underlying values.

The VLQ has been scored in different ways. This investigation was interested in the consistency with which people lived with the values they believe are personally important. To measure this process, the scoring was adapted following a protocol suggested by Weinberg (2009). Those values which had been rated above 5 in terms of importance were selected. Of these personally important values, the mean consistency score was calculated. This score was used to describe 'valued living'.

2.1.6.7 Clinical Outcomes in Routine Evaluation (CORE-OM; Evans et al., 1998, Appendix 12)

The CORE-OM was designed as a mental health outcome measure and is widely used within applied psychology. It measures the level of psychological distress an individual is experiencing, with a higher scores indicating greater distress. It consists of 34 items which address subjective well-being, problems, symptoms, life-functioning and risk to self and others. All items are answered on a five point scale. The CORE-OM provides domain scores and total scores. In this research the total raw score was used as a measure of psychological distress

Psychometric data is available for the domains and total scores. The data relevant to the total scores will be described, as this was included in the analysis. It has shown good internal consistency (α=.94) in clinical and non-clinical populations. The test-retest reliability was found to be good (.9) and it was considered to have acceptable validity because it correlated in the predicted directions with a range of associated measures (Evans *et al.*, 2002). The measure can be used to discriminate between clinical and non-clinical populations. Therefore it is appropriate for use with a sample from the non-clinical sample and the MDO sample.

Due to copyright considerations, permission was sought from the author to administer this measure in an online format (Appendix 13).

2.1.7 Procedure

Most participants were sent an e-mail (Appendix 4) which briefly outlined the study and provided a hyperlink to the website where the survey was located. This website (BOS) was hosted by the University of Bristol and is a professional tool for online data collection. Permission was sought from individuals before the researcher sent them this e-mail. Each individual was only sent the e-mail once. This e-mail contained contact information for the researcher so that potential participants could ask questions prior to their involvement, none of them did so.

Some individuals declined to provide their e-mail address but accepted a copy of the Participant Information Sheet. This contained the same web address for the survey so they could access it independently.

The first page of the online questionnaire contained the Participant Information Sheet (Appendix 14). In consideration of study 2, this information sheet referred to "psychiatric patients" rather than "mentally disordered offenders" in order to avoid a potential bias in responses. Participants were then invited to click on the "continue" button if they wished to take part.

Participants were asked to indicate their consent to participate (Appendix 14) and to confirm that they met the inclusion / exclusion criteria (Appendix 15) by answering "Yes" or "No" to a variety of questions. Those who did not meet the inclusion/exclusion criteria were informed of the reasons necessitating such criteria and thanked for their participation thus far. Participants were then presented with the aforementioned measures. In total, it took approximately 20-25 minutes to complete this survey. The responses were automatically saved as the participants progressed through the questionnaire. At the end, they were thanked for their participation and provided with details of how they could obtain a summary of the results of the study.

2.2 Results

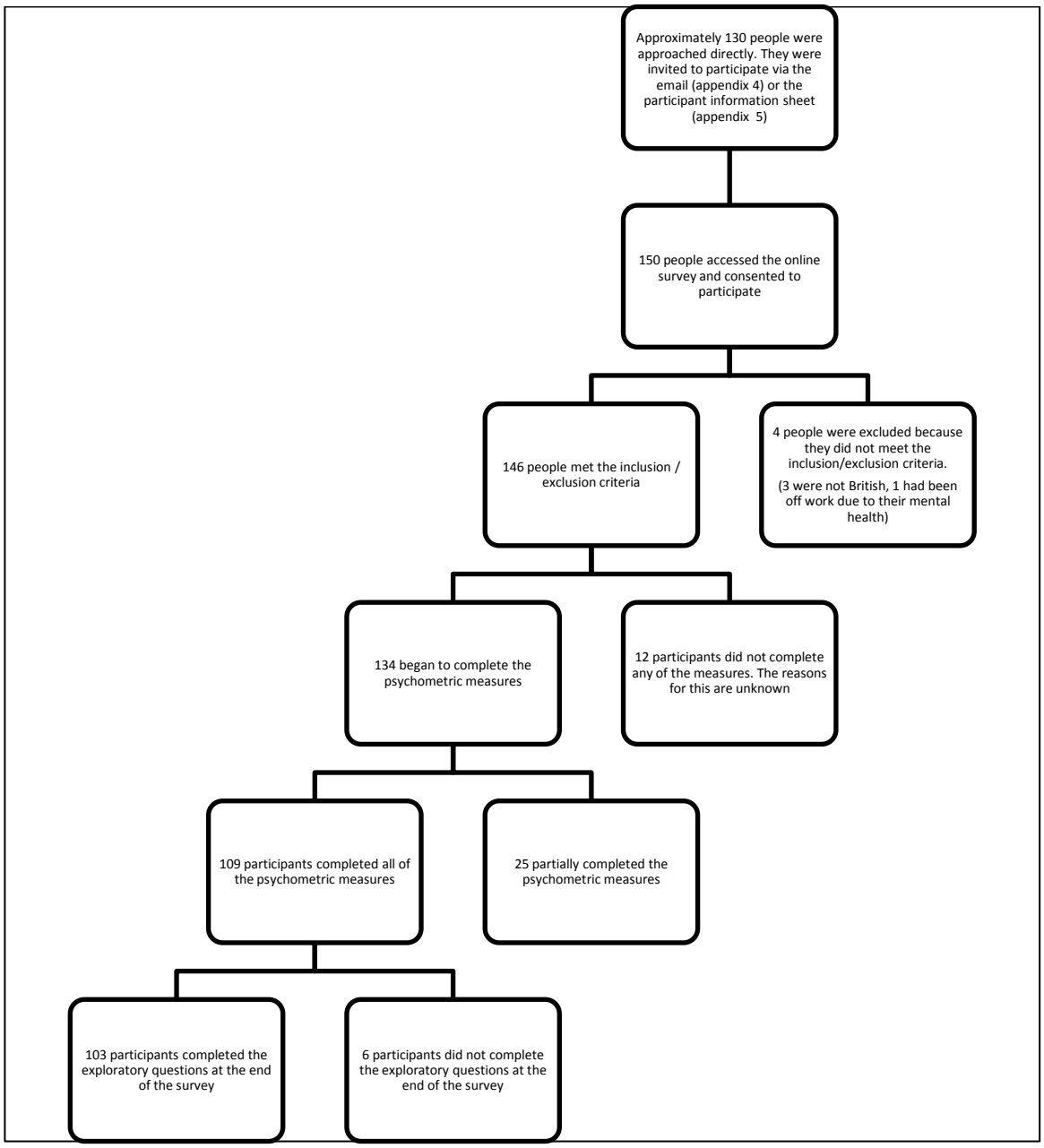
The data was analysed using SPSS v.17.0 and Microsoft Office Excel 2007.

2.2.1 Participants

Approximately 130 people were directly approached to participate in the study. However, it is not possible to ascertain the number of participants relative to the number of people approached because "snowball sampling" was used. This is a process whereby participants are asked to identify other potential participants and invite them to take part. Therefore it was not possible to monitor the exact number of people invited.

150 people consented to participate in the study and 146 met the inclusion/exclusion criteria. Of those who met the inclusion/exclusion criteria, 12 participants did not complete any of the measures and 25 withdrew their participation before completing all of the measures. The reasons for withdrawal were not obtained. Psychometric data was obtained for up to 134 people. 109 provided responses to all of the standardised measures. The data from participants who partially completed the study was included in the analysis. This information has been summarised in Figure 4.

Figure 4: Recruitment of participants in study 1



The age of the sample ranged from 21 to 70 years of age, however 4 people declined to provide this information. The mean age was 35.88 years (S.D. = 12.65). Further demographic data is presented in table 1.

Table 1: Demographic information of participants in study 1

Demographic Variable		N	Percentage (%)
Gender	Male	50	37.3
	Female	84	62.7
Education	Secondary school	17	12.7
	Tertiary education	117	87.3
Marital status	Single	59	44
	Living as married	15	11.2
	Married	57	42.5
	Divorced	3	2.2

2.2.2 Missing data

Of the 134 people for whom data was obtained, 25 participants only completed some of the measures. These individuals finished the earlier measures but not the later ones. No other pattern for missing data was observed.

Within study 1 the data was subject to a correlational analysis. Therefore pair-wise deletion of responses occurred. This meant that if an individual only completed one of the two measures needed for the analysis, their responses were excluded.

2.2.3 Preliminary Statistical Analysis

2.2.3.1 Normality of data

The normality of the data was initially assessed with the use of histograms and the Kolmogrov-Smirnov test (Appendix 16). All variables were normally distributed, and therefore parametric tests were used in the analysis.

2.2.3.2 Descriptive Statistics

The descriptive statistics have been summarised in table 2.

Table 2: Descriptive statistics (study 1)

		Potential minimum score	Potential maximum score	Clinical cut-off	Non-clinical population		Results			
					Mean	SD	Mean	SD	Range	N
Self-transcendence centred score (PVQ)[1]		---	---	---	---	---	0.55	0.48	-1.13 – 1.57	129
Self-enhancement centred score (PVQ)[1]		---	---	---	---	---	-0.45	1.14	-2.70 – 8.50	129
Conservatism centred score (PVQ)[1]		---	---	---	---	---	-0.31	0.68	-1.90 – 4.81	129
Openness to change centred score (PVQ)[1]		---	---	---	---	---	0.32	0.63	-1.40 – 1.70	129
Cognitive Fusion (CFQ13)		0	91	---	44.3[2]	10.5[2]	36.96	11.21	13 – 74	113
Experiential Avoidance (AAQ-II)	Positively scored	0	70	---	50.72[3]	9.19[3]	57.00	9.04	27 - 77	112
	Negatively scored	0	70	---	---	---	23.01	9.04	3 – 53	112
Average score for consistency living with important values (VLQ).		0	10	---	---	---	7.12	1.44	3.44 – 10	111
Psychological Distress (CORE-OM: Total)		0	136	50[4]	31.96[5]	---	16.90	13.31	0 – 68	109
Subjective quality of life (WHOQOL total raw score)[6]		0	120	---	---	---	98.44	8.75	72 – 117	134

[1]Normative data is unavailable because this measure has been scored according to value domains rather than value types; [2]Dempster, 2009; [3] Bond *et al.*, 2008; [4] Barkham *et al.*, 2006; [5]Evans *et al.*, 2002 (the total score was calculated from the data presented); [6] Normative data is unavailable because the total score was subject to analysis rather than the domain scores which are normally reported.

2.2.4 Is maintaining a focus on values appropriate in clinical interventions?

The relationships between the consistency with which people live in accordance with their values and factors that are monitored in clinical interventions have been analysed using bivariate correlation. These results have been summarised in table 3.

Hypothesis 1: Cognitive fusion, experiential avoidance and psychological distress will correlate negatively with the process of 'valued living'.

Statistically significant negative correlations were found between the consistency with which someone lives in accordance with their values and

- Cognitive fusion (r = -.25, d.f.=109, p = .004, one-tailed test)
- Experiential avoidance (r = -.27, d.f.=109, p = .002, one-tailed test)
- Psychological distress (r = -.42, d.f.=107, p <.001, one-tailed test).

Hypothesis 2: The consistency with which someone lives in accordance with values that are personally important will correlate positively with their quality of life.

There was a significant positive correlation between the consistency with which someone lives in accordance with their values and their subjective quality of life (r =.45, d.f.=109, p <.001, one-tailed test).

Table 3: Correlations between 'valued living' and factors monitored in clinical interventions

	Cognitive fusion (N = 111)	**Experiential avoidance** (N = 111)	**Psychological distress** (N = 109)	**Quality of life** (N = 111)
Consistency living with personally important values	**-.25****	**-.27****	**-.42****	**.45****

$^{**}p$<0.01

2.2.5 What is the nature of the relationship between an individual's value profile and the processes that contribute to 'valued living'?

The relationships between the openness to change and self-transcendence value domains and cognitive fusion, experiential avoidance and psychological distress were analysed using bivariate correlation. The correlations have been summarised in table 4.

Hypothesis 3: Cognitive fusion, experiential avoidance and psychological distress will correlate negatively with the openness to change and self-transcendence value domains.

Significant positive relationships were found between the OTC value domain and:

- Cognitive fusion (r = .21, d.f .= 111, p =.013, one-tailed test)
- Experiential avoidance (r = .23, d.f.=110, p=.008, one-tailed test)
- Psychological distress (r = .26, d.f.=107, p = .003, one-tailed test)

No statistically significant relationships were found between the self-transcendence value domain and

- Cognitive fusion (r = -.09, d.f.=111, p = n.s., one-tailed test)
- Experiential avoidance (r = .08, d.f.=110, p = n.s., one-tailed test)
- Psychological distress (r = .07, d.f.=107, p = n.s., one-tailed test)

Hypothesis 4: cognitive fusion, experiential avoidance and psychological distress will correlate positively with conservation and self-enhancement value domains.

No Statistically significant relationships were found between the conservation value domain and

- Cognitive fusion (r = .09, d.f.=111, p = n.s., one-tailed test)
- Experiential avoidance (r = -.05, d.f.=110, p = n.s., one-tailed test).

A significant negative relationship with psychological distress (r = -.16, d.f.=107, p = .05, one-tailed test), which was in the opposite direction to that hypothesised.

No statistically significant relationships were found between the self-enhancement value domain and

- Cognitive fusion (r = .06, d.f.=110, p = n.s., one-tailed test)
- Experiential avoidance (r = -.09, d.f.=110, p = n.s., one-tailed test)
- Psychological distress (r = -.03, d.f.=107, p = n.s., one-tailed test)

Table 4: Summary of correlations with value domains and processes that affect 'valued living'

	Cognitive Fusion (N = 113)	**Experiential avoidance** (N = 112)	**Psychological distress** (N = 109)
Self-transcendence value domain	-.09	.08	.07
Openness-to-change value domain	**.21***	**.23****	**.26****
Self-enhancement value domain	.06	-.09	-.03
Conservation value domain	.09	-.05	**-.16***

$^{*}p<0.05$; $^{**}p<0.01$

2.3 Discussion

Study 1 investigated the relationship between values, the process of 'valued living', psychological distress and the two processes that ACT suggests maintain psychopathology: cognitive fusion and experiential avoidance. These relationships were examined in a non-clinical sample.

2.3.1 Is maintaining a focus on values appropriate to clinical interventions?

2.3.1.1 Summary of results and interpretation of findings

Study 1 began to explore whether a focus on values was appropriate to clinical situations. The hypotheses that cognitive fusion, experiential avoidance and psychological distress would correlate negatively with 'valued living' were confirmed. A moderate effect size was obtained for the relationship between 'valued living' and psychological distress, but small effect sizes were found for its relationships with experiential avoidance and cognitive fusion.

One possible reason for these different effect sizes could be that the concept of psychological distress is widely understood by participants and the CORE clearly assesses this. Therefore it is likely that the results are representative of distress experienced because participants understood what was measured. However, the concepts of cognitive fusion and experiential avoidance are less familiar, and the tendency to remove unwanted private events is very common. It may also be that individuals are unaware of their own avoidant behaviour, which could introduce a bias into their ratings.

A positive correlation was also found for subjective QoL and 'valued living'. This moderate effect size is interesting, because the corresponding measures have little conceptual overlap and the items are different. It suggests that these concepts are significantly related, which implies that targeting values could increase an individual's QoL. Although an intervention study would be required to test this explicitly, these results suggest that this is a question worth pursuing.

These analyses were correlational and so not indicative of causality. The small to moderate effect sizes would suggest that there are other relevant factors which are related to 'valued living'. However, the relationships were in the expected direction which would provide preliminary evidence that a focus on values could be appropriate to clinical situations.

2.3.1.2 Clinical implications

Despite the recent trend for interventions to take account of individuals' values, there has been an absence of a definition of values which could guide clinicians. Given the trends observed in these results, it may be that the definitions employed by ACT and Schwartz could remedy this. The definitions of values provided by both models emphasise their transsituational nature and the importance of intrinsic reinforcement. These could be the aspects that clinicians should be aware of when helping people to clarify their values and work towards them.

Although this sample had a lower level of psychological distress than that encountered in clinical situations, the results suggest that a focus on values could be appropriate to clinical interventions. This is because 'valued living' correlates positively with QoL and negatively with cognitive fusion, experiential avoidance and psychological distress. There is no obvious reason to suggest that these relationships would be different in clinical populations. Further research about the nature of these relationships in clinical populations remains necessary. For those clinical populations whose distress is attributed to unchangeable / permanent phenomenon (e.g. pain or treatment resistant psychosis) symptom eradication could be considered a less achievable goal. In these circumstances, a focus on 'valued living' with a persistent condition may be more achievable and improve QoL. Working towards values seems an appropriate goal, but further research is needed to establish whether this shift in focus has a meaningful impact on patients in clinical settings.

2.3.1.3 Theoretical implications

These results establish a link between psychopathology and 'valued living'. The use of the CORE-OM as a measure of general psychological distress demonstrates that the findings extend beyond ACT to other models of psychotherapy and the GLM.

The correlations observed were consistent with the ACT literature. However, the effect sizes obtained were small and therefore should not be over interpreted. It may be that other variables (e.g. financial status, mood or distress) have a stronger relationship or that the ACT processes identified mediate the relationship between another variable and 'valued living'. Another possibility is that the relationships observed in this non-clinical population were small due to the small amount of variance in psychological distress that they reported. It may be that the nature of the relationships change when they are examined in populations experiencing psychological distress.

Previously the relationships between 'valued living' and experiential avoidance had been described in a student population and those with chronic pain. This study also incorporated cognitive fusion and provides support for these relationships with adults from the non-clinical sample, therefore adding to the existing evidence base. It also provides initial, limited, support for the use of the pragmatic truth criterion in clinical situations, i.e. that interventions should be evaluated by what will facilitate a valued and meaningful life.

It is not possible to ascertain whether these results support ACT's assumption that 'valued living' is impeded by people's efforts to remove distress. However, it does seem to be that there is a small negative relationship between the extent that people avoid negative private events and 'live in their head' and the likelihood that they are not living consistently with values. Establishing the link between QoL and 'valued living' provides preliminary empirical support for the aims of the recovery movement and 'Well Scotland Initiative' in addition to the qualitative support it has already received.

Part of WHO's definition of QoL incorporates the importance of personal value systems. However one of the corresponding measures, the WHOQOL-BREF, does not explicitly measure values or consistency of living with them. The positive relationship observed between these variables suggests that this aspect of the definition has some validity. The relationship between 'valued living' and quality of life could suggest that both of these factors are linked to broader areas of function than just psychopathology.

2.3.2 What is the nature of the relationship between value profiles and the processes that contribute to 'valued living'?

2.3.2.1 Summary of results and interpretation of findings

The ACT literature identifies several values that emphasise prosocial behaviour and relationships. However, as has been suggested, this list may not be applicable to all people. It was hoped that incorporating Schwartz's model of values could broaden the concept of values and provide further insight into how values apply to psychopathology. Schwartz hypothesised that anxiety is one process which organises an individual's value profile; his explanation of this described a process similar to experiential avoidance. This thesis examined the link between experiential avoidance, cognitive fusion, psychological distress and the domains identified in his model. Schwartz divides value domains into two conflicts: self-transcendence vs. self-enhancement and conservation vs. openness-to-change (OTC).

It was hypothesised that cognitive fusion, experiential avoidance and psychological distress would correlate negatively with the OTC and self-transcendence value domains. This was because the model suggests that these domains are associated with less anxiety. No significant relationship was found between these variables and self-transcendence. Contrary to the hypothesised direction, OTC had a positive relationship with psychological distress, cognitive fusion and experiential avoidance. The direction of this relationship was unexpected, and the effect sizes were small.

The next hypothesis was that the same factors would correlate positively with conservation and self-enhancement value domains. However, none of the factors assessed had a significant relationship with the self-enhancement value domain. Conservation was not related to experiential avoidance or cognitive fusion, but had a negative relationship with psychological distress. This was also a small effect size. These domains include the two values (tradition and self-direction) which are assessed with the least reliability by the PVQ. This should be considered when the results are interpreted because it may reduce the confidence with which they can be regarded or underestimate the strength of the relationship.

It may be that there is no relationship between these processes (experiential avoidance and cognitive fusion), self-enhancement and self-transcendence because these value domains reflect skills and motivations that are fundamental to daily functioning. This study occurred with a relatively healthy population, and so the relationship between these value domains and

psychopathology has not been assessed amongst those struggling with mental illness. It could be that the importance of the self-enhancement domain was artificially high in this sample, where 87.3% had undertaken further education, which may have obscured any relationships.

Schwartz (1992) described several reasons that underlie the function of values. One is that they facilitate social functioning. Self-transcendence values (universalism and benevolence) are the most closely tied to relationships. It could be that this domain reflects an innate drive and the importance attributed to them is resistant to psychopathology, but the ability to pursue them is not. Although people with mental illness often withdraw from others, social contact generally remains important. The discrepancy between current functioning and fulfilment of values could partly account for worsening mood. Therefore importance ratings would remain high when there is little objective evidence of the value being pursued. The PVQ does not inform us of personal success at this value domain, therefore it could be that these value structures reflect intention rather than action.

Alternatively OTC and conservation do not serve as obvious a social function. The OTC results were surprising and require further investigation and replication before definitive conclusions can be drawn in relation to psychopathology, in particular it would be useful to replicate this study in a clinical population. Although the effect sizes obtained were small, they were consistent with other research regarding Schwartz's model. One possibility is that the relationships are affected by an unidentified variable. Another is that analysing this relationship at the level of values, rather than value domain could illuminate these findings. OTC is comprised of stimulation and self-direction. Self-direction is assumed to reflect a need for control and mastery to achieve autonomy and independence, but upon reflection it may refer to a broader conceptualisation of mastery that includes emotional well-being. Correspondingly stimulation shares similar motivations with self-direction and hedonism. It reflects a need for variety and arousal that maintain an adequate level of activation, and it may be that this incorporates behaviours that could also be considered indicative of experiential avoidance (e.g. substance misuse or extreme sports) in some contexts. This may mean that OTC is more similar to an emotion regulation strategy than an underlying value.

Similarly, the small negative correlation between psychological distress and conservation could also reflect a powerful underlying value. If this were security, then it could be that a sense of safety is linked to mental well-being. This would be consistent with clinical experience.

Alternatively it could be that as people become more distressed they place more importance on tradition and familiar styles of living which are perceived as reflecting greater levels of conformity. This could also suggest that the conservation domain is linked to emotion regulation. However, because it is a small effect size, the influence of this relationship amongst a non-clinical population would be minimal.

2.3.2.2 Clinical implications

The clinical implications of these findings are probably most relevant to the framework that professionals use to conceptualise values. People have a range of values which appear broader than those proposed within ACT. For example, whereas ACT suggests people strive towards success in work or education, values such as power could be equally relevant. When values are addressed in clinical settings, the use of a broad framework is helpful because it facilitates a better understanding of what is important to the individual. To ignore values that people endorse could be counterproductive to meeting their needs, and possibly reflects a judgement about which values are appropriate and which are not. Identifying values would be insufficient if success at achieving them is not addressed.

Although the effect sizes obtained were small and therefore may have a minimal impact on people's presentation, contemplating the reasons for them raises the suggestion that two value domains serve an emotion regulation function is something to which therapists would need to be alert. It may be that patients would confuse values with coping strategies but exploration of the value with a client may inform this. Further research with a clinical population would be necessary to enlighten this possibility, but if conservation were negatively related to psychological distress, there could be implications for the delivery of therapeutic interventions. This could be linked with the need to have predictability in sessions, a feeling of safety and clear boundaries, which is encouraged in most models of psychotherapy.

The suggestion that the importance of some value domains (self-enhancement and self-transcendence) are resistant to psychopathology, but enacting them is not, is also important. If this were true, then the provision of mental health services needs to acknowledge that people have needs related to self-transcendence and self-enhancement, and this should be addressed directly and proactively.

2.3.2.3 Theoretical implications

Neither experiential avoidance, cognitive fusion nor psychological distress appear to organise value profiles. If this was true, significant relationships across all four domains would have been found, which could have suggested that value profiles could change following psychological intervention. This research does not rule out the possibility that clinical anxiety is a primary organising variable, however it seems unlikely. The processes that do underlie this model are yet to be empirically established. It could be that something more central to people's development (e.g. attachment, Bowlby, 1969) is a more powerful determinant.

The results regarding OTC were surprising and in the opposite direction to that hypothesised. Although they constitute a small effect size in this sample, the relationship observed still warrants reflection. It could be that the interpretation of this value domain differs between schools of psychology, or that a different domain name would be more appropriate. Within clinical psychology, this value domain could automatically be interpreted as related to psychological flexibility but this may not be true. Deconstructing this value domain into its component values could indicate whether the relationships were with self-direction, stimulation or both. The negative correlation between conservation and psychological distress was consistent with Schwartz's prediction because it is in the opposite direction to the OTC domain and these domains are assumed to be incompatible with each other.

Of the variables assessed, psychological distress had the greatest relationship with value domains, even though these were small effect sizes. It could be that the levels of cognitive fusion and experiential avoidance reported constituted underestimates because people were unaware of their own avoidant behaviour, in which case the extent of this relationship has not been adequately assessed in this study. It is hard to see how this could be avoided, as a similar criticism would be placed at any research occurring with populations who were unaware of their own avoidant behaviour. Psychological distress is likely to be of more immediate concern to people than the other two variables, and it could be considered as the manifestation of psychological inflexibility, in which case there could be an indirect relationship. Alternatively, the link between 'valued living', cognitive fusion and experiential avoidance may be weaker when low levels of fusion and avoidance are identified and it is only when these processes reach a critical level that values begin to be compromised. Future research could attempt to investigate these hypotheses.

Although the values comprising Schwartz's model initially appeared to meet the ACT criteria for a 'value', this may not be the case. An alternative explanation for the findings regarding the conservation and OTC domains is the hypothesis that these domains reflect emotion regulation strategies. It may be that endorsing the conservation domain reflects a need to limit exposure to uncertainty. Similarly, OTC may reflect a need to achieve mastery over emotions and the environment. From an ACT perspective, this hypothesis would appear to have some validity. However, the domains of conservation and OTC should not be dismissed as irrelevant to values. An enjoyment of new experiences, autonomy and following religion are incorporated in these domains. Depending on the function they serve for an individual, these could be considered values by ACT. This highlights the importance of therapists understanding which values are important to the individual in therapy.

3. Study 2

Investigating values in a mentally disordered offender population

3.1 Method

3.1.1 Design

This study employed a cross-sectional between-subjects design.

3.1.2 Ethical Considerations

In addition to those ethical issues previously considered, further considerations were applicable to the MDO sample:

- Pressure to participate could have derived from two sources:

  a) Fear that the care they received would be compromised by not participating. This was counteracted by providing reassurance that participation was voluntary, and would not impact on the treatment they received or their legal status.

  b) Some participants may feel obliged to participate because of prior contact with the researcher. To address this issue, all potential participants were initially approached by an independent member of the clinical team and those who were engaged in individual psychotherapy with the researcher were excluded.

- Informed consent

  To ensure that the MDO participants could provide informed consent, their RMO (Responsible Medical Officer) was approached to confirm that the individual was considered capable.

- Confidentiality

  Participants from the MDO Sample were assigned a participant number, and no personally identifiable data was collected. Consent forms were stored separately from the raw data.

  It was important to be clear about the bounds of confidentiality. Individuals were told that any information that caused the researcher concern about their well-being or that of others would be shared with the clinical team responsible for their care. However, individuals were reassured that this information would be limited to what caused concern rather than responses to measures.

- Safety

  Those detained in medium security are judged to pose a degree of risk to either themselves or others. Therefore, the researcher took the necessary precautions to maintain their safety and that of patients and ward staff. The researcher was trained in breakaway techniques and the management of violence and aggression. At all times the researcher wore a personal attack alarm, which could be used to summon assistance. Prior to any interview with an inpatient, the researcher checked with ward staff about their mental state. This conversation determined whether the interview took place, or was re-arranged. Following the interview, the researcher fed back to ward staff about the individuals presentation.

3.1.3 Inclusion / Exclusion Criteria

The non-clinical comparison sample consisted of participants from study 1, therefore the same inclusion/exclusion criteria operated. However, there were additional criteria for the MDO population:

Additional inclusion criteria for the MDO sample:

- These participants were considered able to provide informed consent by their RMO.
- These participants were diagnosed with a major mental illness.
- These participants were compulsorily detained within a medium secure unit. There are strict criteria for those who can be detained in medium security, and so all can be assumed to have a significant mental illness and a history of violence.

The exclusion criteria were different to those employed in study 1:

- Those individuals who were currently acutely psychotic.
- Those individuals who were considered unable to provide informed consent.
- Any individuals who were engaged in individual psychotherapy with the researcher.

3.1.4 Power Analysis

A prospective power analysis informed the estimation for the necessary sample size. When compared to a non-clinical sample, the MDO population is characterised by the significant mental health difficulties that lead to their detention and poor functioning. However, there has been no previous research which compares these processes between MDOs and the non-clinical sample, therefore post hoc effect sizes were calculated for comparisons between clinical and non-clinical populations in relevant measures.

A comparison of psychological distress as measured by the CORE-OM (Evans *et* al., 1998) amongst a non-clinical and Primary Care samples (Evans *et al*., 1998) found the difference between the groups to constitute a large effect size (d = 1.63). Similarly, cognitive fusion was also greater in a clinical sample comprised of individuals with complex and chronic presentations than a non-clinical community sample (Gillanders & Bolderston, 2010), and a large effect size (d = 1.33) was obtained for the difference between them. The MDO population could also be considered to have a complex and chronic presentation. A moderate effect size was found for the difference in experiential avoidance (measured by AAQ-II) between a non-clinical sample and individuals with psychosis (d = .41), but a large effect size was calculated when the same non-clinical sample was compared to individuals with substance misuse difficulties (d = .99 Bond *et al*., 2008), both substance misuse and psychosis are prevalent difficulties amongst a MDO populations. Finally, a large effect size (d = 1.20) was also calculated when comparing the overall QoL of a non-clinical population to those with severe mental illness who's QoL was significantly lower (Evans *et al*., 2007).

In terms of measuring values and 'valued living' it was not possible to calculate an effect size of the difference between clinical and non-clinical populations. This was because data corresponding to the VLQ that has been published solely relates to a non-clinical student sample (Wilson *et al*., 2008), this can not be compared with the VLQ data related to psychosis (Weinberg, 2010) because the measure was scored differently in each study. To date, the PVQ has not been administered to a clinical population and so this effect size could not be calculated either. However, social cognition literature suggests that as well as guiding the actions of individuals, values serve a social function which determines appropriate social behaviour. Anti-social behaviour does not comply with wider social norms, and so offenders' values may be different.

Study 2 is a preliminary exploration, but it seems that a large effect size could be expected when comparing a non-clinical and MDO sample. To detect a large effect size with the statistical power of 0.8 at an alpha level of 0.05, then it would be necessary to recruit 26 individuals to each sample (Cohen, 1992).

3.1.5 Participants

In this study, a matched subset of the non-clinical sample was compared with participants from a MDO population.

The participants from an MDO population were recruited from a Medium Secure Unit (MSU). Those who did not meet the criteria were excluded. The care of each patient in a MSU is overseen by a Consultant Psychiatrist who acts as their Responsible Medical Officer (RMO). Each RMO was given a copy of the Participant Information Sheet written for this population (Appendix 17) before being asked to indicate which patients could provide informed consent. The RMO regularly monitors the mental state and capacity of individuals under their care, and so was considered to be the most appropriate judge of this. Only those individuals considered capable were approached.

3.1.6 Measures

The same measures were administered in study 2 as those in study 1. However, additional demographic data was collected for this sample. Their diagnosis and index offence were recorded. A signed copy of their consent form was kept in their medical and psychology notes, and one was given to the individuals for their own records.

The psychometric data for the measures has already been presented. The measures have had limited application with a MDO population. However they are all relevant to their presentation. The CORE-OM was designed for use in many clinical settings (Evans *et al.*, 1998); it was piloted in a low-secure prison and the authors concluded that it was a useful tool in therapeutic forensic settings (McCloskey, 2001). The AAQ-II, VLQ and CORE-OM have been used successfully with those with psychosis (Lower, 2008; Wienberg, 2009). The WHOQOL-BREF was administered to MDOs in a Belgian forensic psychiatric hospital and was considered acceptable (Saloppe & Pham, 2006). The PVQ and CFQ have not yet been used with this population or a similar one.

3.1.7 Procedure

Members of the clinical team made the initial approach to participants to ascertain whether they were willing to hear about the research. Those that agreed met with the researcher to review the Participant Information Sheet (Appendix 17). This was discussed fully and they were encouraged to ask questions. Those willing to participate signed a consent form (Appendix 18).

The measures were administered during face-to-face interviews. Due to significant literacy problems in this population (McMahon *et al*., 2004) questions were read aloud to participants and they selected their answers from prompt cards, unless they decided otherwise. Following participation, the researcher informed nursing staff about the participants' presentation during their interview. The researcher placed an entry in the individual's medical notes to record their participation. Completed measures were pseudo-anonymised and stored separately from medical notes.

3.2 Results

The data was analysed using SPSS v.17.0 and Microsoft Office Excel 2007.

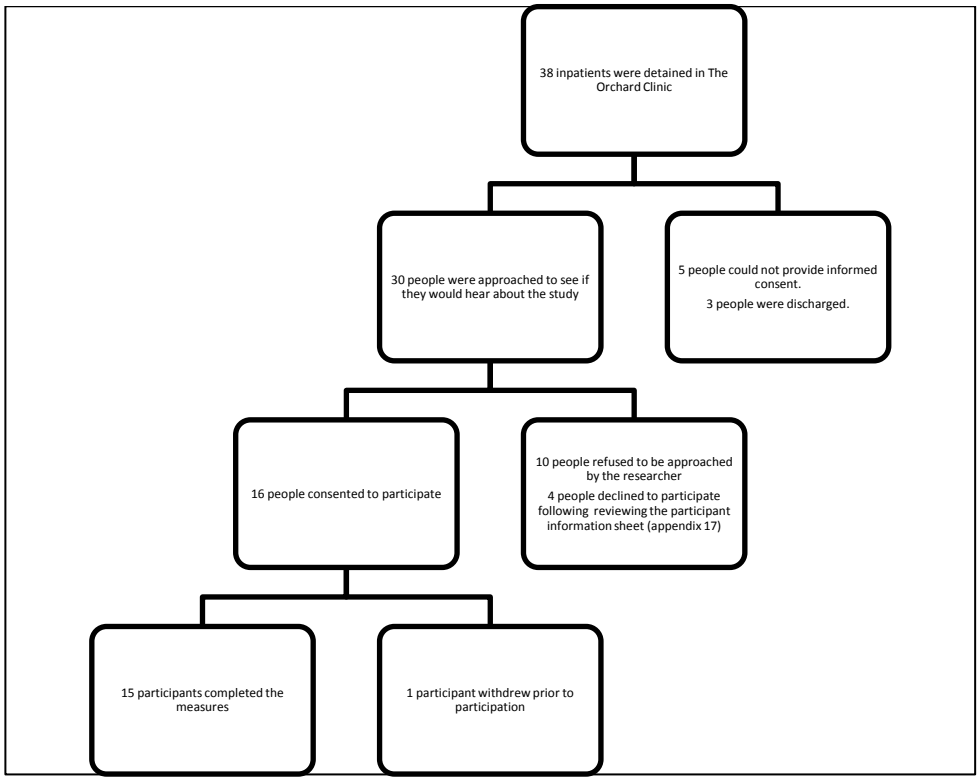
3.2.1 Participants

Within study two there were two samples:

1. MDO sample.

   Approximately 38 patients were detained in a medium secure unit during the period of recruitment. Five people were considered unable to consent, 3 were discharged and 14 declined to participate. Complete data sets were obtained for 15 participants, and one participant withdrew after their initial consent. This information has been summarised in Figure 5.

Figure 5: Recruitment of the MDO sample



The demographic data is summarised in tables 5, 6 and 7. All of the participants were diagnosed with a psychotic disorder (see table 5). They all had a history of interpersonal violence towards others and their index offences included assault, murder, rape and threatening behaviour. Providing more detailed information about diagnoses and offence history would compromise the anonymity of those who participated.

Table 5: Primary diagnoses of participants within the MDO sample

Primary Diagnosis	***N***
Schizophrenia	10
Bipolar disorder	2
Schizoaffective disorder	2
Depression with psychosis	1

2. The non-clinical comparison group

15 participants were selected from study 1. These participants were matched for gender, age and education as far as possible, by following this process the researcher did not need to choose between equally suitable participants. All participants within this sample were aged within two years of the corresponding MDO. The demographic data is described in table 5. A Chi-square test established that this subgroup did not significantly differ from the wider (study 1) sample on relationship status (living with a partner vs. not) (χ^2=0.34, d.f.=1,*p*=.56). The other demographic variables were not assessed because they were used to select participants.

Table 6: Demographic information (study 2)

Demographic variable		**Non-clinical sample**	**MDO sample**
Sex	Male	14	14
	Female	1	1
Marital status	Not living with a partner	8	15
	Living with a partner	7	0
Highest level of education	Secondary school	4	10
	Tertiary education	11	5

Table 7: Ages of participants (study 2)

	N	Minimum	Maximum	Mean	Std. Deviation
Non-clinical sample	15	21	56	37.87	10.756
MDO sample	15	19	53	38.73	10.931

3.2.2 Missing data

There was no missing data.

3.2.3 Preliminary Statistical Analysis

3.2.3.1 Normality of data

The normality of the data was initially assessed by the Shapiro-Wilk test (Appendix 19). The results suggested that all the variables were normally distributed, except for the CORE total raw score for the MDO sample. Various data transformations were unsuccessful. Therefore t-tests were employed where possible, but analysis of the CORE required the non-parametric equivalent: the Mann Whitney U test.

3.2.3.2 Descriptive Statistics

The descriptive statistics have been summarised in table 8.

Table 8: Descriptive statistics (study 2)

	Norms (SEMI)		**Norms (MDOs)**		**Non-clinical sample** (*N = 15)*		**MDO sample** (*N = 15)*		***Analysis of difference between samples***		
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	***t***	**U**	***d***
Self-transcendence centred score (PVQ)[1]	---	---	---	---	.62	.30	.18	.39	3.46	---	1.26
Self-enhancement centred score (PVQ)[1]	---	---	---	---	-.73	.96	-.52	.88	-0.73	---	0.23
Conservatism centred score (PVQ)[1]	---	---	---	---	-.35	.71	.01	.54	-1.58	---	0.57
Openness to change centred score (PVQ)[1]	---	---	---	---	.33	.69	.08	.64	1.03	---	.38
Cognitive Fusion (CFQ13)[1]	61[2]	13.5[2]	---	---	36.73	11.11	45.27	15.81	-1.71	---	0.63
Experiential Avoidance (AAQ-II)	40.18[3]	16.25[3]	---	---	21.6	8.44	38.73	12.72	-4.35*	---	1.59
Average score for consistency living with important values (VLQ).	6.03[3]	1.81[3]	---	---	7.62	1.31	5.42	1.88	3.73*	---	1.35
Psychological Distress (CORE-OM: Total raw score)	42.89[4]	25.06[4]	---	---	12.4	11.76	29.8	20.33	---	4.14*	1.51
Subjective QoL (WHOQOL total score)	47.31[5]		59.12[6]	14.19[6]	99.53	9.25	83.87	11.35	30*	---	---

[1]Measures have not been examined in a relevant population; [2] Gillanders & Bolderston, 2010; [3] Weinberg, 2009; [4] Lower, 2008; [5] Alptekin et al, 2005; [6] Saloppe & Pham, 2006 (Belgian sample in maximum security)

* p <.001

3.2.4 Do MDOs differ from the non-clinical sample in terms of their values and the processes that contribute to 'valued living'?

*Hypothesis 5**: MDOs will* **rate** *the self-transcendence value domain as less important than the non-clinical sample.*

The MDO sample rated self-transcendence values as significantly less important than the control group ($t_{(28)} = 3.46$, $p = .002$, two-tailed test, $d = 1.26$).

Hypothesis *6: MDOs will rate the self-enhancement value domain as more important than the non-clinical sample.*

The MDO sample rated self-transcendence values as more important than the control ($t_{(28)} = -.73$, p = n.s., two- tailed test, $d = .23$). This difference was not statistically significant.

*Hypothesis 7**: MDOs will not differ from the non-clinical sample in terms of the importance attributed to conservatism* **or** *openness to change.*

The MDO sample rated conservatism as more important than the non-clinical sample ($t_{(28)} = -1.58$, p = n.s., two-tailed, $d = 0.57$), while OTC rated as less important ($t_{(28)} = 1.03$, p = n.s., two-tailed, $d = 0.38$). These differences were not statistically significant.

*Hypothesis 8**: MDO* **sample** *will have a different overall value profile from the non-clinical sample.*

The average importance of value types were ranked and have been summarised in table 9. Those ranked in first place were considered the most important.

Table 9: Value profiles of the MDO and non-clinical sample

Value type	Non-clinical sample	MDO sample
Self-direction	1	1
Stimulation	7	8
Hedonism	4	2
Achievement	8	7
Power	9	10
Security	5	3
Conformity	6	5
Tradition	10	9
Benevolence	2	6
Universalism	3	4

The ranked position of each value for the participants was obtained by looking at the relative importance they attributed to them. This was then subjected to a two-tailed Mann Whitney U test in order to discover if the ranks assigned to each value varied between the groups (table 10). The small sample size meant that effect size could not be calculated (Clark-Carter, 2010, p.207). Benevolence was ranked significantly lower by the MDO sample than the non-clinical sample.

Table 10: Mann-Whitney U tests of differences in value profile

Value type	U	P	N_1	N_2
Self-direction	108	.87	15	15
Stimulation	87	.31	15	15
Hedonism	111	.97	15	15
Achievement	110	.94	15	15
Power	88.5	.33	15	15
Security	97	.54	15	15
Conformity	90.5	.37	15	15
Tradition	71.5	.09	15	15
Benevolence	**54**	**.02***	**15**	**15**
Universalism	102	.68	15	15

***** $p<0.05$

*Hypothesis 9**: MDOs will differ from the control group* **in** ***'valued living', the processes (cognitive fusion, experiential avoidance and psychological distress) that influence it, and quality of life.***

The factors pertinent to 'valued living' were compared between the two samples using two-tailed t-tests, except for psychological distress. This information has been summarised in table 7.

The MDO sample was found to have higher levels of cognitive fusion, experiential avoidance and psychological distress. They had a lower subjective quality of life and degree of 'valued living'. All of these relationships were found to be statistically significant with the exception of cognitive fusion, for which a moderate effect size was detected.

3.3 Discussion

The potential inappropriateness of encouraging 'valued living' in an offender population is often proposed as a possible flaw in the ACT model. Therefore study 2 constituted a preliminary empirical investigation of whether MDOs differ from the non-clinical sample in terms of values and the processes that contribute to 'valued living'.

3.3.1 Summary of results and interpretation of findings

The value domains assessed by the PVQ were compared between an MDO population and a control population. The MDO sample rated self-transcendence values as less important than the control group. This difference constituted a large effect size. This could suggest that MDOs place less importance on relationships, but this does not mean that the domain is unimportant. Potential explanations for this are numerous, but clinical experience would suggest that two are particularly relevant:

1. These individuals often have a significant history of interpersonal difficulties and insecure attachment. They are more likely to have experienced or witnessed violence within close relationships, in which case relationships are associated with pain and distress. Prior to admission, many inpatients are immersed in drug subcultures where they can be exploited. The manifestations of their mental illness and offending behaviour can generate relationship difficulties and key relationships may have been lost as a result. These factors combine to suggest that assigning less importance could serve a protective function. Whether this avoidance is detrimental to 'valued living' or it is an appropriate behaviour shaped by environmental contingencies experienced needs to be established.

2. The context in which MDOs live should be considered. Progress is monitored on an individual level. Those in closest proximity with them are staff and fellow patients; but relationships with professionals have consistent and imposed boundaries, and those with fellow patients are not actively encouraged. All of these relationships are temporary. One description of the function of secure psychiatric care is self-enhancement. Patients are encouraged to assume greater degrees of responsibility for change and achieve in a variety of domains (e.g. mental health, Occupational Therapy, personal care). Therefore this is a context where self-enhancement is promoted.

Consistent with this latter hypothesis, the MDO sample attributed greater importance to the self-enhancement value domain than the control group. This difference was not statistically significant, but a small effect size was detected, which suggests that the study was underpowered to detect this relationship. Although, this small effect size may still be relevant, it may be that this finding is anomalous to these samples. Further replication of these findings would provide clarification of this.

The differences between importance attributed to the conservation and OTC value domains by each sample was not significant. However, the effect sizes detected suggest that there was a moderate effect size for conservation having more importance and a small-moderate effect size for OTC having less importance for the MDO sample. Further research would confirm whether this difference exists or whether it was unique to this research. Again, one possible explanation for these differences would be the environmental demands within secure care. Stability of presentation and compliance with restrictions is emphasised. Attributing the same degree of importance to the conservation value domain may not be as functionally adaptive to the non-clinical sample. Therefore it could be that the local culture may influence value importance.

The overall value profile of the MDO sample was hypothesised to be different from the control group and this hypothesis was confirmed. The value type of benevolence had a significantly higher rank in the value profile of the control group. This difference should not necessarily be accepted at face value. Universalism received a comparative rank suggesting that vaguer, less immediate relationships (e.g. protecting the weak in society) are as important for both samples. These are more abstract relationships which may be less tainted by personal experience. Therefore it may be that the lower rating of benevolence reflects avoidance of painful stimuli. Several reasons have been presented that could account for why benevolence has become a more painful value to the MDO population than the control group. Due to their history of neglectful and abusive relationships the experience and prospect of being close to others can be highly threatening to the MDO population. This could be compounded by poor social skills, environmental demands and long admissions. Whether this difference existed prior to admission to psychiatric care has not been established.

The MDO sample had significantly greater psychological distress and experiential avoidance than the non-clinical group, and these were large effect sizes. A moderate effect size was also detected for cognitive fusion, which was greater amongst the MDO population, but this was not

statistically significant and therefore the study was underpowered to detect the relationship. These results suggest that there is less psychological flexibility within this population than the control group. The MDO sample also had significantly lower subjective QoL and 'valued living'. These relationships were expected and are indicative of treatment needs, which could be met by psychological interventions such as ACT.

3.3.2 Clinical implications

The findings were consistent with previous research that those with mental illness have a lower QoL than the non-clinical sample. However, these results add to this literature by examining this difference with an MDO population. The QoL of MDOs has rarely been the focus of research. This is surprising given that QoL impacts on affective state (Draine & Solomon, 2000), and poor psychological well-being is a risk factor for future violence (Webster *et al*., 1997). Therefore it warrants further investigation. Results from study 1 suggest that value-consistent action is positively related to QoL, and therefore a values focus is relevant to clinical practice with this population.

The response of the MDOs to the VLQ suggests that the control group and MDO sample share important values. However, the degree to which they live in accordance with these values was lower for the MDO sample. A population with high levels of cognitive fusion is less likely to be able to see the opportunities for value-consistent action and is likely to engage in behaviours (private and public) that control thoughts and emotions at the expense of valued action. Professionals working with them may require a greater degree of creativity to think how these values can be fulfilled because of the restrictions on this patient group. For example if 'parenting' were important to someone who could not be a parent (e.g. because of their index offence) then fulfilling this value by other means (e.g. looking after a pet, providing peer support) would need to be encouraged.

Even though benevolence is ranked lower in importance by the MDO sample than the control group, it was still important to them and positively rated. Universalism received a higher rating than benevolence, which was equivalent to the control group. If this finding was linked to experiential avoidance rather than a fundamental difference, then targeting this avoidance should be part of the rehabilitation process. It may be that avoidance needs to be addressed in specific domains and accompanied by skills building. If self-enhancement values are more important to this population, then there is a greater need to make interventions personally relevant to them.

Structuring interventions around salient values is one possible method. Presenting an intervention in a manner that emphasises self-enhancement could provide a persuasive reason to engage fully in treatment.

The incorporation of Schwartz's model has allowed differences between the samples to become apparent. Without its inclusion these differences would not have been detected, and therefore it has added to the understanding of values in a MDO population. Superficially the differences in value profile could be attributed to a fundamental difference between the MDO and non-clinical sample. However it could be unethical to act as though this were true because treatment needs would be overlooked. Clinicians should be aware of the differences identified and the multiple possible reasons for these.

It may be that during initial stages of rehabilitation the greater importance of self-enhancement values is useful because it facilitates motivation to progress through the system. In a context where self-enhancement is encouraged within the environment and benevolence is rated with less importance by patients, there could be some difficulties managing ward areas which would be aided by awareness of this discrepancy.

This is a population where behaviours indicative of experiential avoidance are frequently observed, and this is supported by the findings reported. They also have higher levels of psychological distress and cognitive fusion. It would seem that an intervention that targets these processes is warranted. However, in an MDO population it may require added elements such as building skills and an engagement phase that clearly links the benefit of treatment to their goals. This could be similar to DBT. Making interventions appear relevant to the individual may be overlooked in settings where managing risk is prominent and patients believe that compliance with interventions generates increasing access to community living instead of improved mental well-being. A decision to participate may often be more motivated by a desire to escape their current situation than a wish to pursue a fulfilling life.

3.3.3 Theoretical implications

Research into the clinical applications of values is at an early stage. The lack of research into values and offenders has been observed (Day & Casey, 2009). The consideration of values is a relatively new approach in forensic settings, and this appears to be the first study which directly assesses the values of this population. The results of study 2 have theoretical implications for ACT, Schwartz's model and the Good Lives Model (GLM).

The MDO sample represents a clinical population with severe and enduring clinical needs. They had higher levels of cognitive fusion, experiential avoidance and psychological distress, and lower levels of 'valued living' and QoL. These findings are consistent with the ACT model.

The addition of Schwartz's model of values provided an insight into the values of an MDO population that would not have become apparent if it had not been included. It has highlighted issues that therapists working with this population should be aware of.

Schwartz suggested that those values rated as more important tend to be those that can be achieved more readily (Schwartz & Bardi, 2001) and this would appear to be true when examining the value profile of both samples. For the control group, the top three values (self-direction, benevolence, universalism) were the same as those identified within the cross-cultural research (Schwartz & Bardi, 2001) investigating the PVQ. However, for the MDO group the top three were different: self-direction, hedonism and security. For MDOs, the greater importance of hedonism may reflect the tendency towards thrill-seeking behaviours and impulsivity. The small numbers of participants make it difficult to generalise these results beyond this sample.

The self-enhancement value domain (achievement and power) was rated as more important by the MDO than the control group. However, these values are at the bottom of their profile. Although they appear to be more important, they are not prioritised. Stimulation and tradition have the strongest relationship with corresponding behaviours (Bardi & Schwartz, 2003), but they are also at the bottom of both value profiles. Those values considered self-defining have a greater influence on behaviour (Verplanken & Holland, 2002) and it seems reasonable to assume that those rated as more important (i.e. ranked higher) would be more self-defining. Therefore it could be that in real terms, these findings have little impact on behaviour.

The results of study 2 are consistent with previous research which identified self-enhancement value domains as having a stronger relationship with variables such as empathy and honesty which are often linked to offending behaviour. The reasons why these relationships emerge in the first place remains unclear. The value profile of the MDO sample is similar to the list of primary goods proposed within the GLM. The most notable differences related to hedonism and security and the lower ranking of benevolence. This may be something that should be considered when evaluating and implementing the GLM, as it could provide insight into the efficacy of the GLM.

4. Study 3

An exploration of the perceived origin and factors which maintain individuals' values.

4.1 Method

4.1.1 Design

The study employed a cross-sectional internet based design and used descriptive statistics for analysis.

4.1.2 Ethical Considerations

The ethical considerations were described in studies 1 and 2.

4.1.3 Inclusion / Exclusion Criteria

The same inclusion / exclusion criteria as studies 1 and 2 were employed.

4.1.4 Power Analysis

Study 3 explored the factors that maintain and influence the development of salient values. This qualitative part of the thesis was examined with descriptive statistics. Therefore a power analysis was unnecessary.

4.1.5 Participants

Those participants who completed the full survey in study 1 and the MDO sample from study 2 participated in study 3.

4.1.6 Measures

4.1.6.1 Exploratory Questionnaire

Participants were asked to complete a series of open and closed questions about their subjective view of the origin of their values and the current and historical factors which rendered them meaningful. These questions were developed by the researcher and refined following consultation with colleagues. The interview is in Appendix 20. This interview had a Flesch reading ease score of 78.5 and a Flesch-Kincaid grade level of 5.2. Therefore a 10 year old who spoke English as their first language should understand the questions. This was consistent with the other measures administered.

4.1.7 Procedure

Following the administration of the psychometric measures, participants were asked to complete these questions. The responses from participants were analysed using quantitative content analysis (Bryman, 2004). The data was coded according to the coding manual in Appendix 21, which categorised responses according to processes identified within the ACT literature.

4.2 Results

The data was analysed using SPSS v.17.0 and Microsoft Office Excel 2007.

4.2.1 Participants

Most participants (N = 103) from study 1 and the whole MDO sample (N = 15) completed the exploratory questions. The demographic data has already been presented.

4.2.2 Missing data

On occasion, some participants did not respond to every question asked, however their other responses were still included in the analysis. No pattern for missing data was observed.

4.2.3 Descriptive statistics

Participants were asked about their values, the origins of these values and the factors that maintain them. This data was subject to an exploratory descriptive analysis. The data is predominantly presented with bar charts. The responses from each sample are presented separately. The frequencies are presented as percentages for both samples. However, the small MDO sample size should be noted. The responses were coded in light of the ACT literature. The coding manual is in Appendix 21, but excerpts have been included in the results to complement the descriptive statistics, as have example responses. For some questions, respondents were able to provide a first and second choice, not everyone provided a second response, therefore these percentages will not add up to 100%. This did not occur in the MDO sample, because these interviews were conducted face-to-face.

The questions the participants were asked form the graphs' titles.

4.2.3.1 Current presence of values in participants' lives

Participants were asked to rate the extent to which they had thought about their values in the preceding week (Figures 6 and 7). This seems to be a topic considered by both groups.

Figure 6: Amount of time participants spent thinking about personal values in the preceding week (Non-clinical sample, *N* = 103)

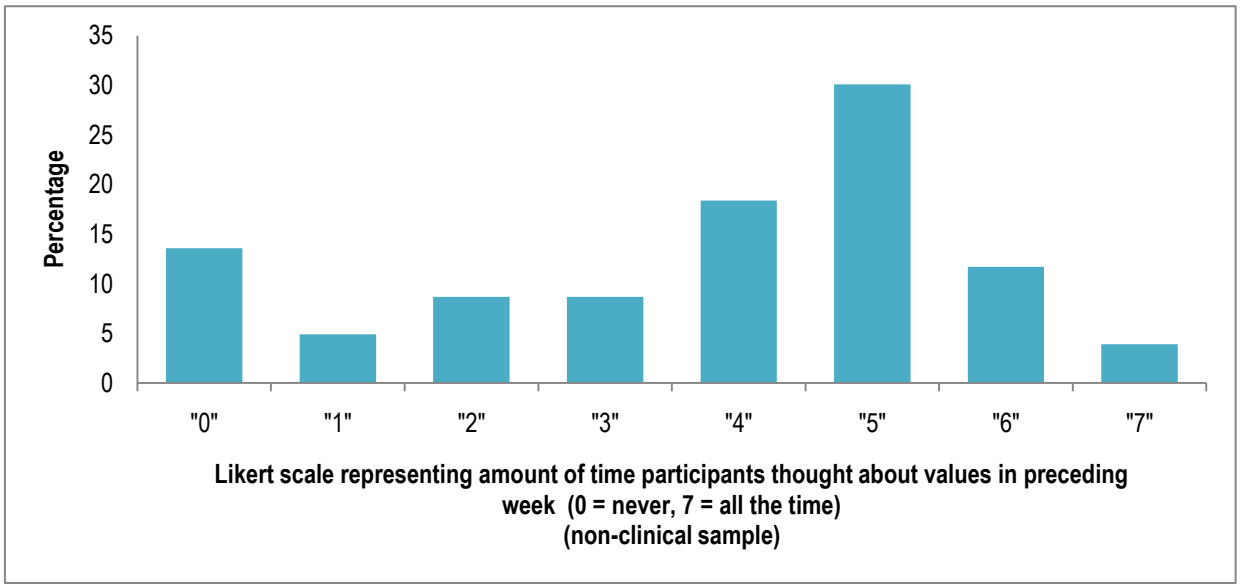
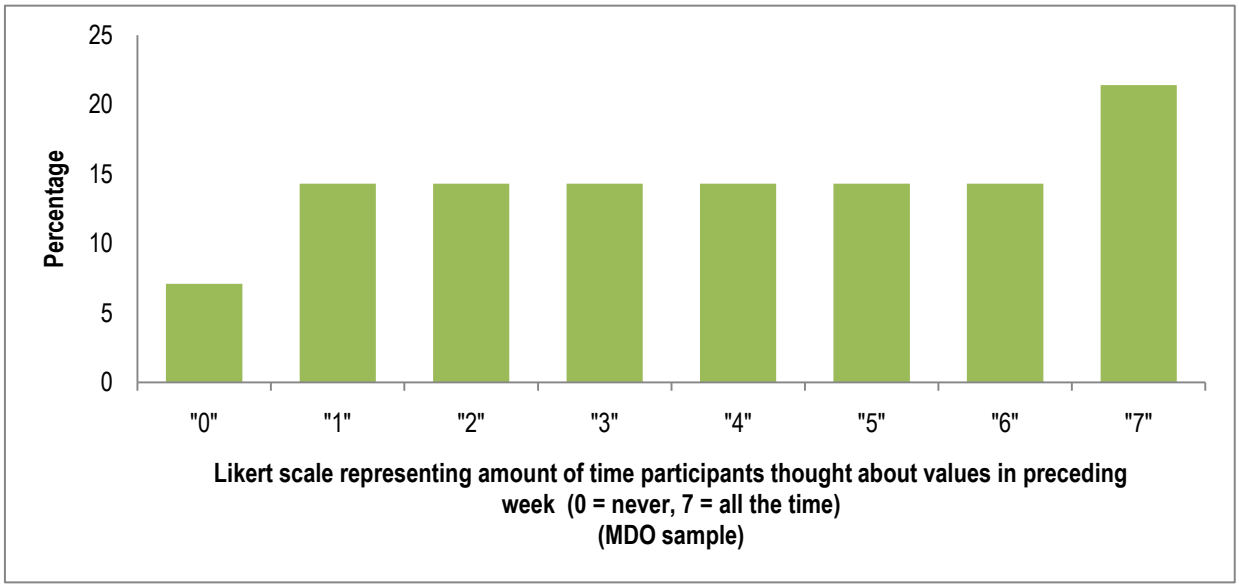


Figure 7: Amount of time participants spent thinking about personal values in the preceding week (MDO sample, *N* = 15)



Participants were asked about the nature of their thoughts about values in the preceding week, and these responses were coded according to the definitions in table

Table 11: The nature of participants' thoughts about their values

Current presence of values	The response indicated that participants thought about the current presence of values within their life. E.g. 'have been thinking a lot about relationships, my partner, parenting and my friends'
Current absence of values	The response indicated that participants thought about the current absence of values within their life. E.g. *'lack of intimate relationship in my life at the moment'*
Evaluation of current life in relation to values	The response indicated that participants were evaluating their current life in terms of their values and what is meaningful to them. E.g. *' About where my life is at the moment and I how I would like to change it.'*
Future valued direction	The response indicated that participants thought about their future in relation to their values and the actions that would allow them to pursue them. E.g. *'I have thought about parenting as I am pregnant and so was thinking about my role as a parent.'*
Discrete goals	The response indicated that participants had thought about discrete goals. Although these goals may be related to values, this relationship was not alluded to. E.g. *'should be doing more exercise.'*
Memories of 'valued living'	The response indicated that the participant had spent time contemplating past values and value-consistent action, and that this was an intrinsically rewarding process. *E.g. 'I think about things we [family] did together'*
Did not think about them	The participant stated that they had not thought about their values in the preceding week. E.g. *'didn't think about this'*

Figure 8: The nature of the thoughts participants had about their values in the preceding week (non-clinical sample, *N* = 91)

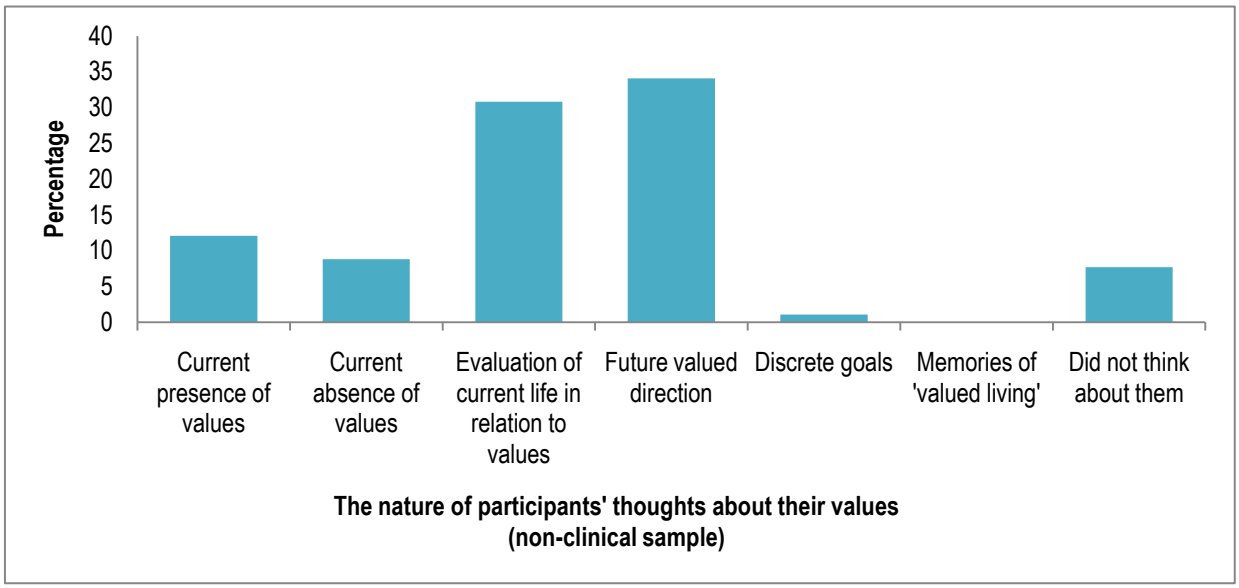


Figure 8 and 9 describe the nature of the thoughts people had. The majority of participants' thoughts concerned evaluating whether they were living consistently with their values or future valued directions This was also true for the MDO sample (Figure 9), who had an added category about contemplating historical values. Their responses did not suggest that this was conceptualised as a loss, because they spoke of enjoying the memories.

Figure 9: The nature of the thoughts participants had about their values in the preceding week (MDO sample, *N* = 15)

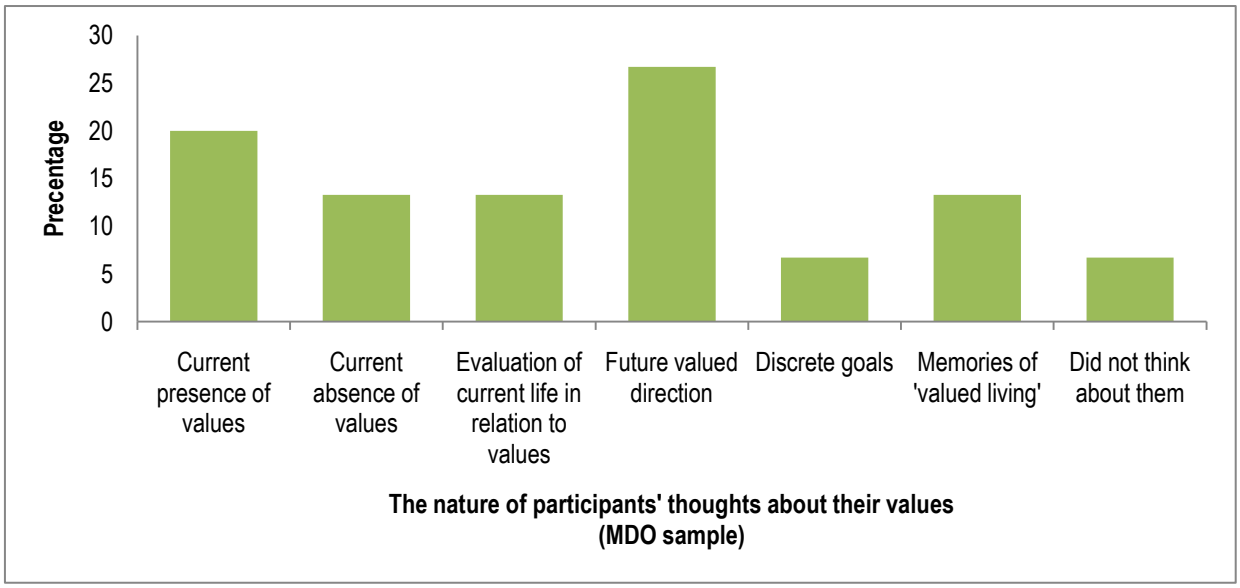
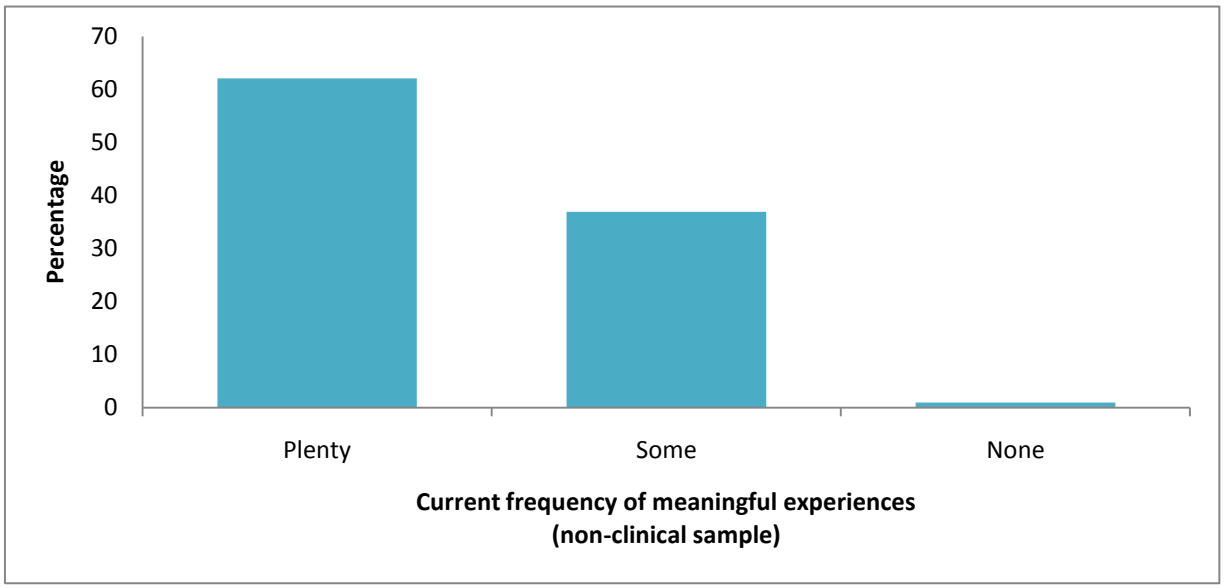
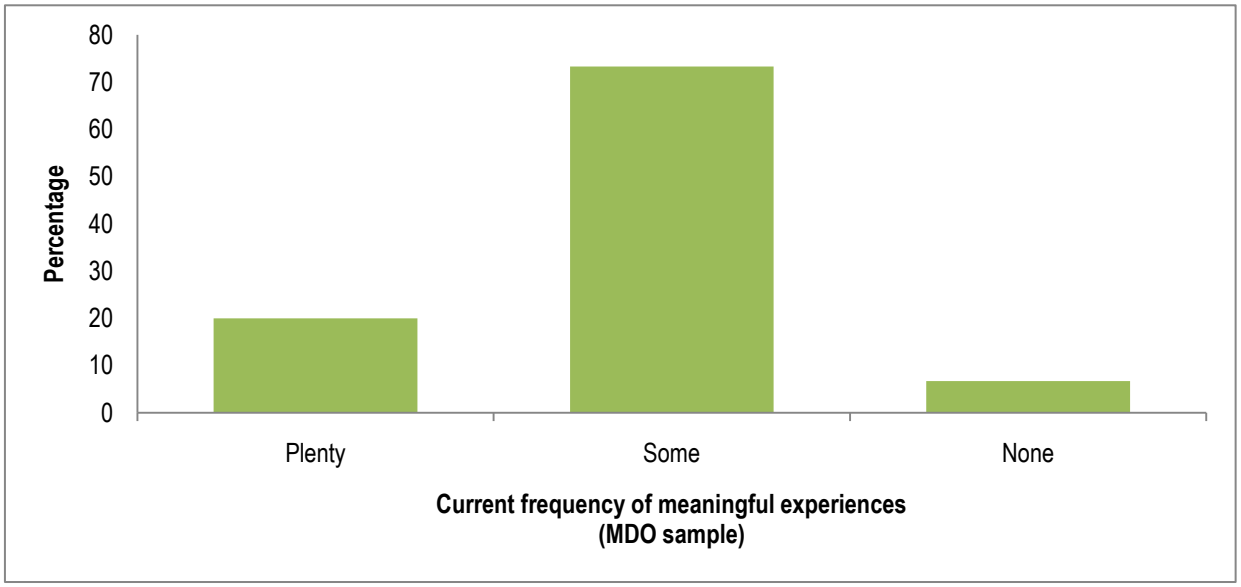


Figure 10: The current frequency of meaningful experiences in the participants' life (non-clinical sample, *N* = 103)



Figures 10 and 11 display participants' judgement of the current frequency of meaningful experiences in their life. The majority of the control group reported 'plenty' of meaningful experiences, however the category of 'some' was the most prevalent response from the MDO sample. Only 1 participant in each group stated that they had none.

Figure 11: The current frequency of meaningful experiences in the participants' life (MDO sample, *N* = 15)



Participants were asked to identify the two most meaningful values; however some people only provided one response.

Figure 12: The values that are most meaningful to participants (non-clinical sample, total *N* = 102)

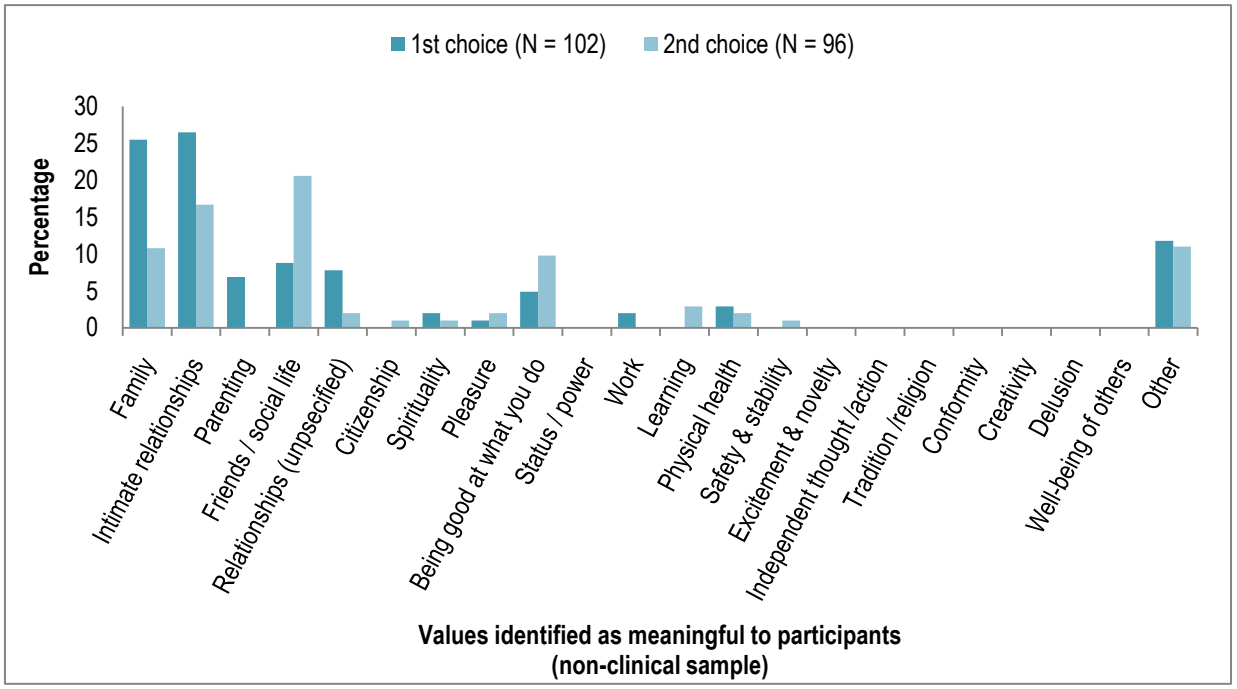
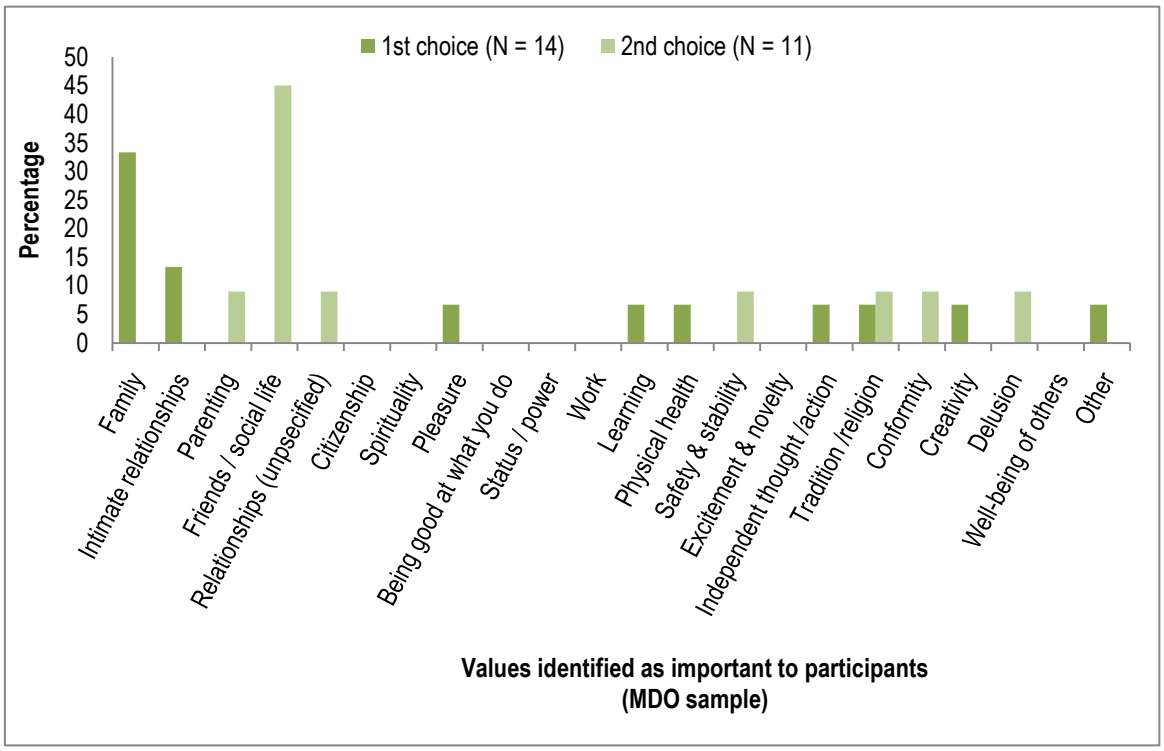


Figure 12 displays what the control group believed their most meaningful values to be. Values concerning relationships were the most important. Responses in the 'other' category referred to achieving positive emotional states, which would not be considered a value (Hayes *et al*., 1999) . Among the MDO sample (Figure. 13), there seems to be various values considered important, but the most prevalent were also related to relationships.

Figure 13: The values that are most meaningful to participants (MDO sample, total *N* = 14)



Participants were asked who had decided which values would be personally meaningful. The majority of the control group (63.1%, *N* = 65) stated that they decided. No one attributed this decision to another person. For those who attributed it to life circumstances (*N* = 38), only 6 people reported that they would prefer different values to be their most meaningful. In this case, they were asked which 2 values they would like to be more important. These mainly concerned relationships (relationships *N* = 4, parenting *N* = 1, other *N* = 1). Only 4 of these people provided a 2nd choice (relationships *N* = 2, pleasure *N* = 1, other *N* = 1).

Amongst the MDO sample, the selection of values was less likely to be perceived as a personal choice' only 8 of these participants believed this was the case, seven attributed the decision to life circumstances and one to someone else. Of the 8 participants who did not attribute the decision to themselves, four stated they would prefer different values to be the most important. Those identified were intimate relationships, belonging to a community, being good at what you do, independence and status/power. These were values that they believed could not be pursued in their current environment.

Figure 14: The values that are least meaningful to participants (non-clinical sample, *N* = 99)

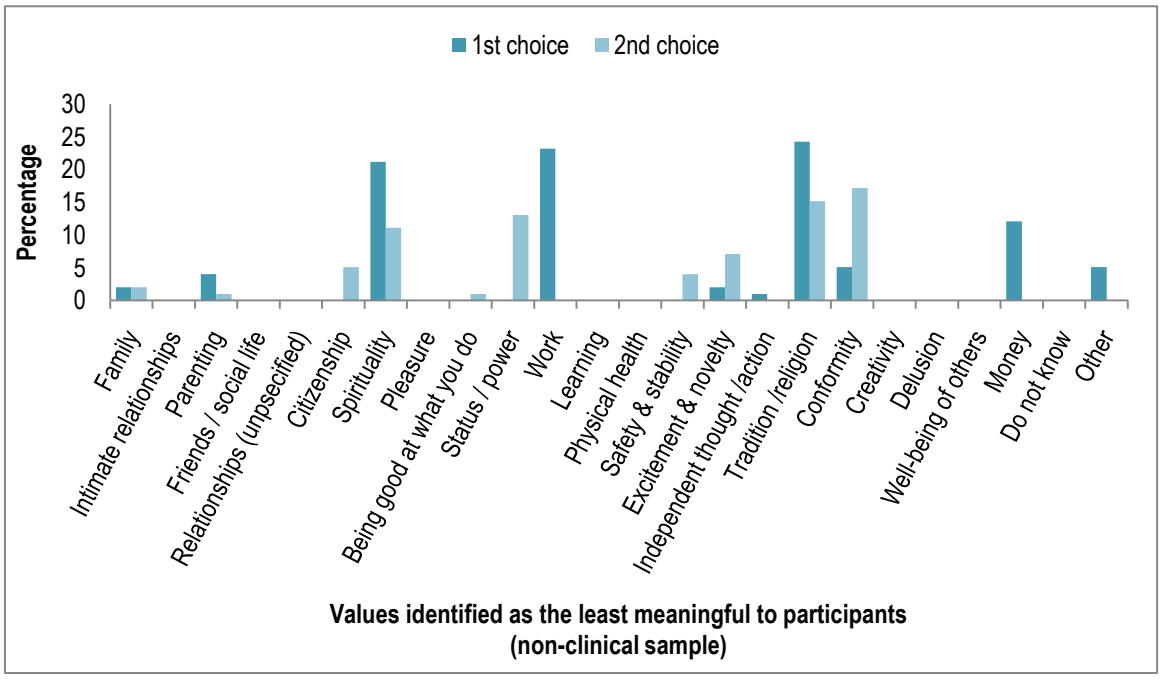
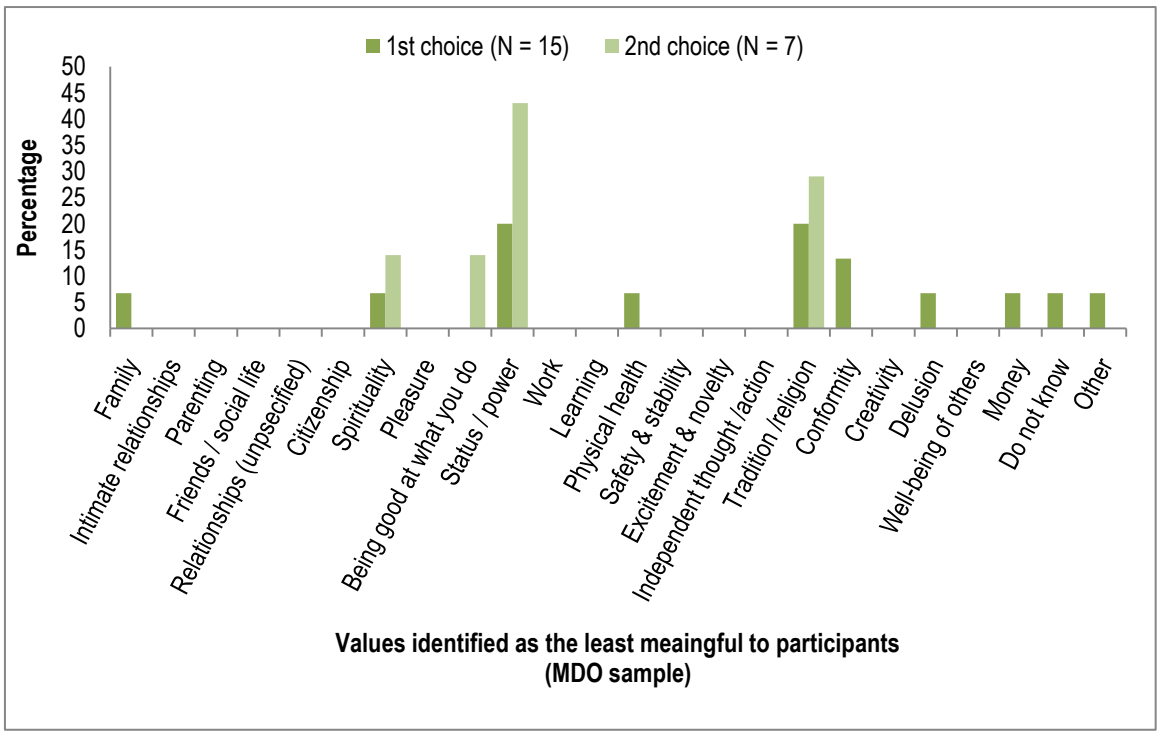


Figure 15: The values that are least meaningful to participants (MDO sample, *N* = 15)



Participants were also asked which values they found the least meaningful (Figure 14 and 15). These values appear to be less related to relationships for both groups. Responses also included items that were not a value (e.g. 'money') and these were coded as 'other'.

Participants were asked who made the decision about which values were not meaningful. The majority (74%, $N = 74$) stated that they made the decision. However, 4 participants attributed this decision to someone else, while 22 attributed it to life circumstances. Only two participants from the latter 2 categories said they would prefer that these values would be more important in their life. One of these people had stated this value as religion, while the other response indicated an emotional goal. Eight of the MDOs believed that they had made this decision, while five attributed it to life circumstances. Four of them said they would prefer different values to be more important (intimate relationships: 1, being good at what you do: 1, independence: 1, being part of a community:1).

4.2.3.1.1 Summary

Most participants reported that they had recently spent time thinking about their values, and it appears to be more unusual not to do so. These thoughts generally related to evaluating their current circumstances and future actions. However, among the MDO sample there was an added category which suggested that people reflected on values that used to be important to them. Values related to relationships were the most frequently identified as personally important by both groups. The majority of participants in the control group reported that they currently had 'plenty' of meaningful experiences, while the MDO sample identified 'some'.

Most people in the control group attributed the decision about which values were meaningful or not to themselves. Those that attributed it to life circumstances were unlikely to want to choose alternative values. However, in the MDO sample four of those that attributed this decision to life circumstances ($N = 7$) would prefer that other values be more important. They believed that their current circumstances were an obstacle to them.

Those identified as least meaningful by the control group appear to be related to power or those that implied conformity to an external agency. The decision about which values are unimportant is generally attributed to the individual in both samples.

4.2.3.2 Factors perceived to maintain values

Participants were asked about the current factors that maintained meaningful values as important and or unimportant. Definitions of these factors are in table 12.

Table 12: Definitions of the factors that maintain values as meaningful or not

Value	Behaviour of pursuing the value generates ongoing intrinsic positive reinforcement. E.g. '*because it is the people I love that bring me happiness and make me feel like a good person. I like to feel loved and I love to be a good partner, sister, daughter etc. Those are the most important feelings to me over and above the rest*'.
Pliance Rule Governed Behaviour (RGB)	Value is pursued or not because of socially determined consequences. E.g. '*we need to have an income that supports us in our lifestyle*'.
Tracking RGB	Value is pursued or not because of natural consequences.
Augmental RGB	Value is pursued or not because of the imagined consequences of doing so. E.g. '[It] *leads to sadness and damage*'.
Experiential avoidance	Value is pursued or not is to control or limit negative emotional states. E.g. '[pursuing] *it helps me to keep control*'
Current positive reinforcement	Value currently provides positive reinforcement, but there was no suggestion it is ongoing. E.g. '*I find it enjoyable spending time with these people*'
Contingency shaped behaviour	Prior experience of this value has informed the decision to pursue it. E.g. '*they affect my feelings and emotions the most*'.
Perceived lack of positive reinforcement	Individual did not believe that pursuit of this value would be rewarding. E.g. '*because striving to these values doesn't give me satisfaction*'.
Incompatible with values	The pursuit of these values was perceived as incompatible with those they found meaningful. E.g. '*I believe in science and getting on with things and therefore am not religious or spiritual*'.
Other	

Figure 16: Factors that currently maintain values as meaningful to participants (non-clinical sample, N = 99)

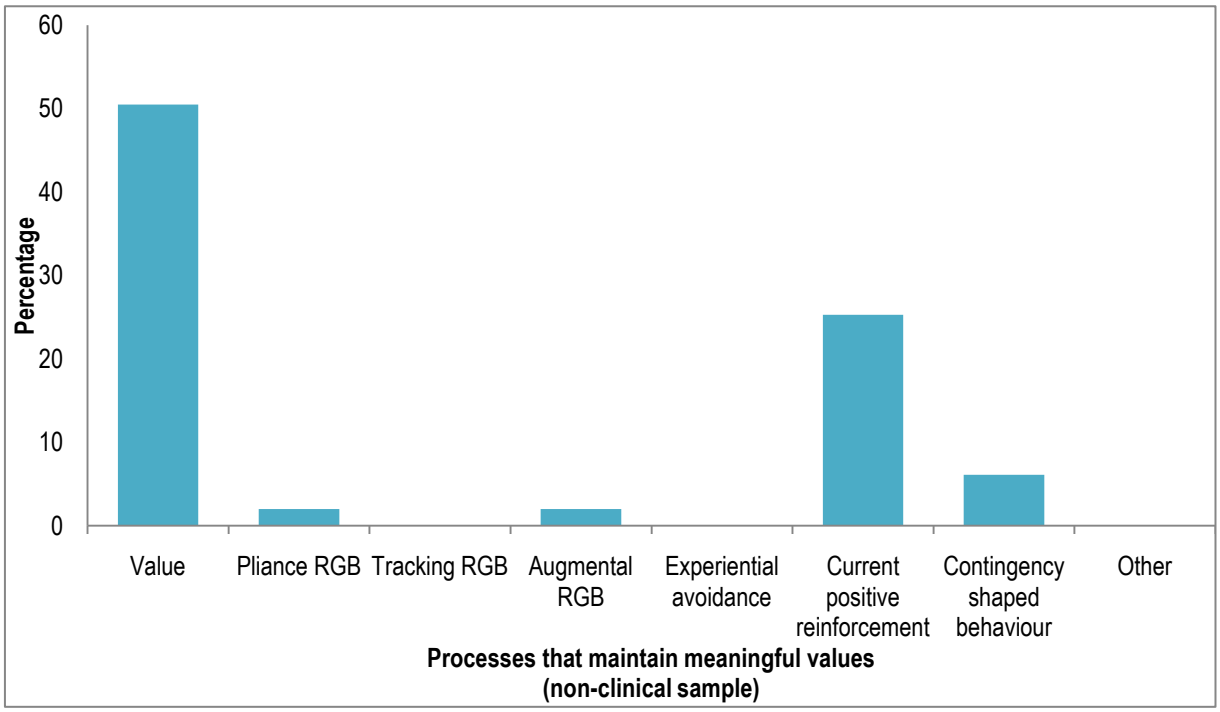
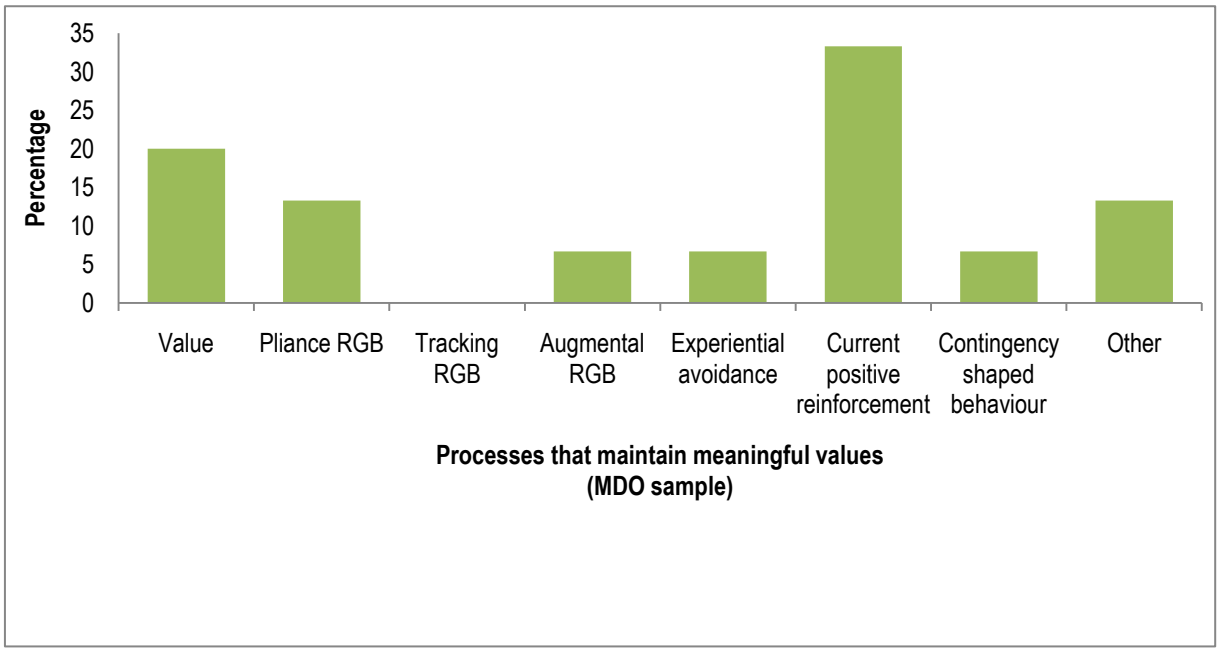


Figure 16 shows the distribution of responses for the control group, and Figure 17 describes the responses from the MDO population. Most participants indicated that positive reinforcement was a key factor via responses indicating it was a value or describing positive reinforcement. In Figure 17, responses coded as 'other' included one participant who could not identify a reason and one who believed that their value was important because they had lost everything else.

Figure 17: Factors that currently maintain values as meaningful to participants (MDO sample, *N* = 15)



In Figure 17, factors that maintain values also were also related to the presence of reinforcement. Two responses were coded as 'other'; one response suggested that the value in question was the only aspect of their life they retained control over while the other response suggested that the value was maintained by the individual's delusional system. This provides valuable clinical information.

Figure 18: Factors that prevented values from being meaningful to participants (non-clinical sample, *N* = 98)

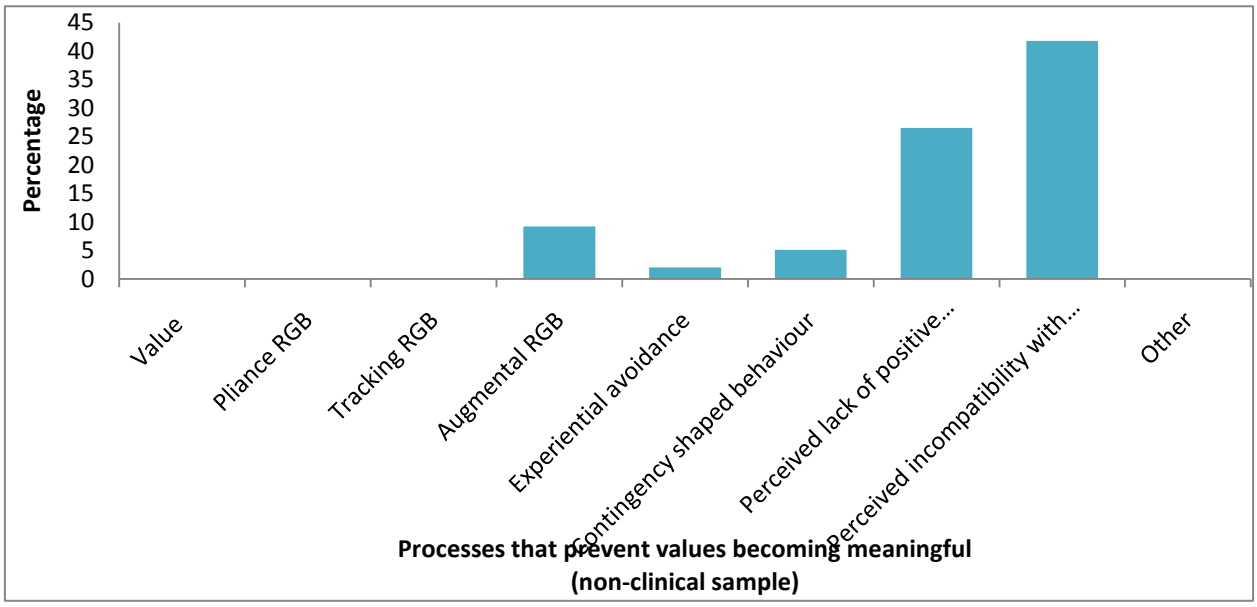
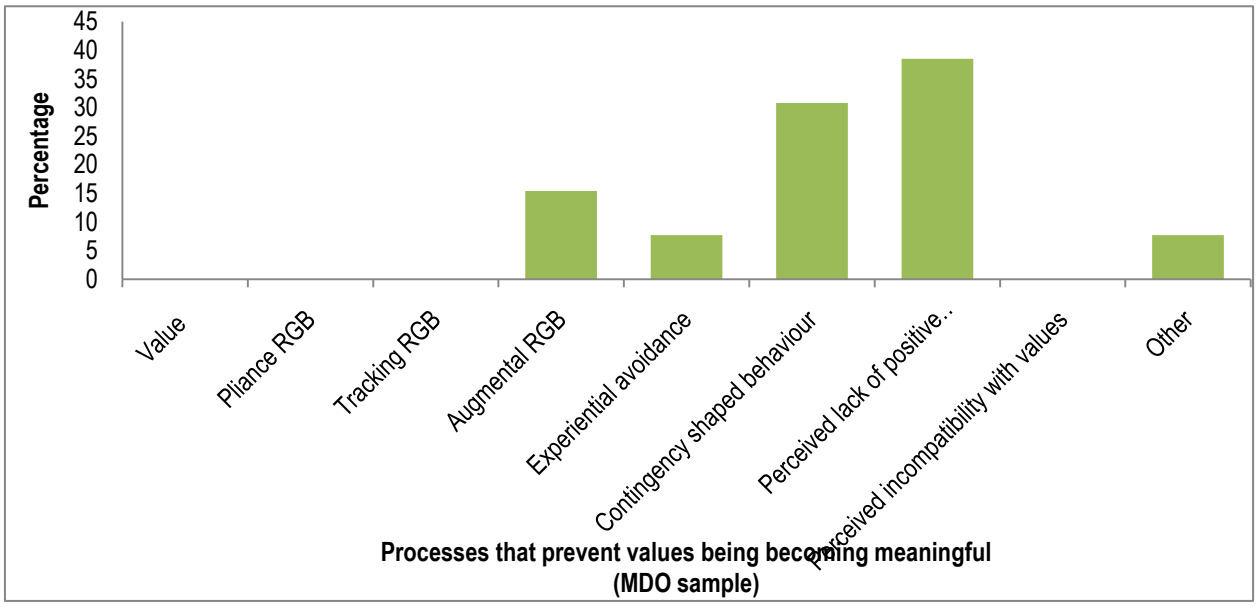


Figure 18 suggests that the lack of potential reinforcement or the apparent incompatibility with personal values were the main factors which maintain values as not meaningful. It appeared that most of the control group were hypothesising about the implications of pursuing the values they had identified as not meaningful (combined responses for augmental RGB, incompatible with values, perceived lack of reinforcement). This was similar for the MDO group (Figure 19). However they indicated that prior experience of the value led to it being viewed as unimportant. It is unclear whether this is a functionally appropriate or avoidant response.

Figure 19: Factors that prevented values from being meaningful to participants (MDO sample, *N* = 15)



4.2.3.1.1 Summary

The results suggested that prior and current experience or positive reinforcement were the most important factors that maintained values as important in both groups. In the MDO sample, one response indicated that the value was maintained by a perceived lack of alternatives and another by the person's delusional system. This provides useful information for working with people clinically.

In both groups imagined consequences of pursuing a value appeared to be the main factor that maintained values as unimportant. For the MDO sample, previous experience of the value also contributed to this process.

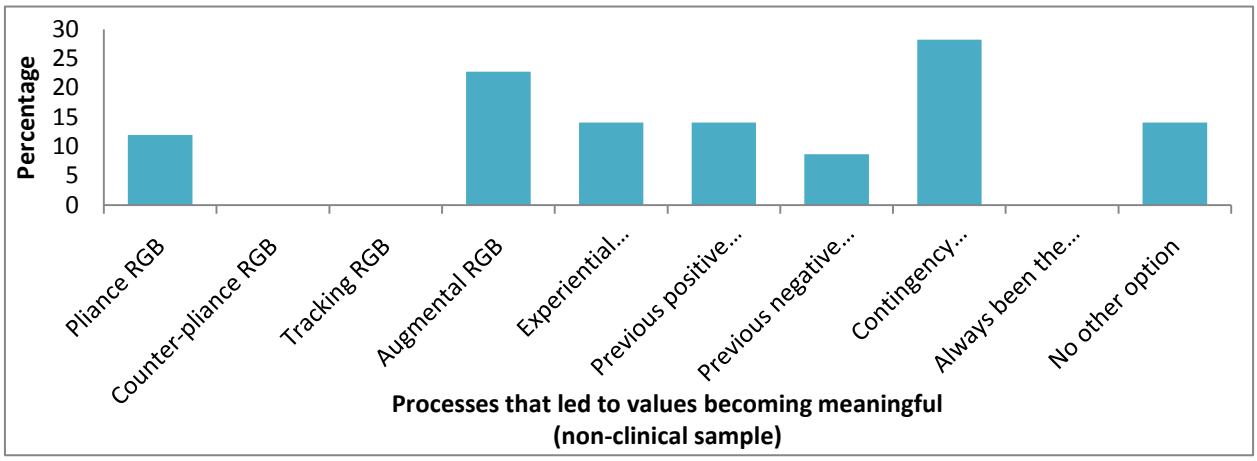
4.2.3.3 Perceived origin of values in participants' lives

Figures 20 and 21 summarise the factors that participants believed accounted for meaningful values becoming personally important. These definitions are provided in table 13.

Table 13: Definitions of the perceived reasons for why values have become important

Pliance RGB	Value is pursued (or not) because of social rules. E.g. '*I guess it's because of how my friends are dong in their lives'*
Counter-pliance RGB	Value was chosen because of external reinforcement and contradicts social norms.
Tracking RGB	Value has become meaningful because of natural consequences.
Augmental RGB	Value has become meaningful because of the hypothesised consequences. E.g. '*my family help me out in any way possible and I return the favour which enables me to get a lot more out of life*'
Previous positive reinforcement	Value has become meaningful because prior experience has been positive. E.g. '*my fiancé offers support, companionship and love*'.
Previous negative reinforcement	Value has become meaningful because prior experience of this value not being present has been negative. E.g. '*as a child I had difficult family relationships and have rediscovered them as an adult*'
Contingency shaped behaviour	Value has become meaningful because of previous experience, but the nature of this is unknown. E.g. '*since the loss of my brother a year ago it has really put things in perspective*'
Always been the way	Value was meaningful because it always had been. E.g. *'I think they have always been meaningful to me*'
No other option	The value was considered meaningful because the participant believed they had no alternative options. E.g. '*all other things have disappeared because of my situation*'
Experiential avoidance	Value is considered meaningful because it prevents negative emotion. E.g. *#I hate seeing people treated with little respect*'.
Other	

Figure 20: Factors that accounted for why important values had become meaningful (non-clinical sample, *N* = 92)



The main factors identified within the control group (Figure 20) were the imagined consequences of the pursuit of a value (augmental RGB) or previous experience of the consequences (either positive or no direction was stated) of pursuing it. This would appear to be consistent with the ACT model. When participants mentioned previous negative experience of contingencies, it was in relation to not pursuing a value.

Figure 21: Factors that accounted for why important values had become meaningful (MDO sample, *N* = 15)

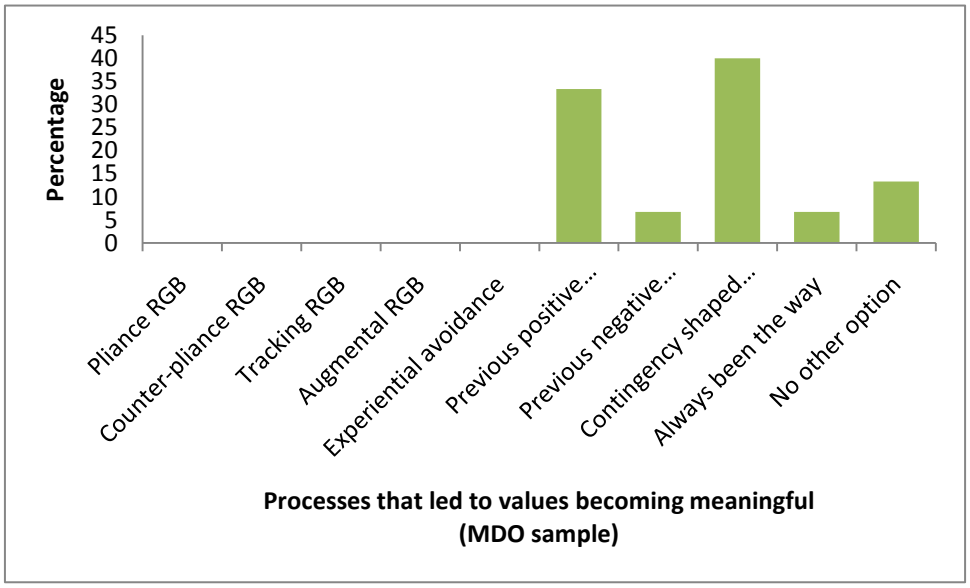


Figure 21 suggests that prior experience (the first three categories) affected which values became meaningful to the MDO sample. However, there was some indication that these values were not a choice but a reflection of personal history and a lack of options. The MDO sample found it difficult to answer this question.

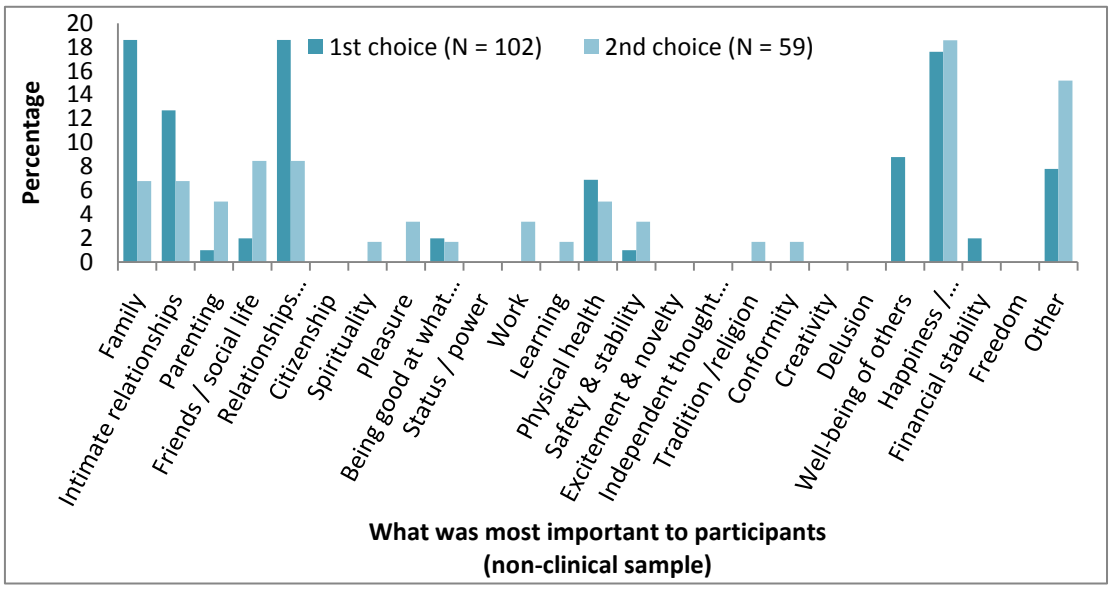
4.2.3.3.1 Summary

Participants identified that previous experience accounted for where values originated in both samples. For the control group, the hypothesised consequence of pursuing the value was also important.

4.2.3.4 Final Questions

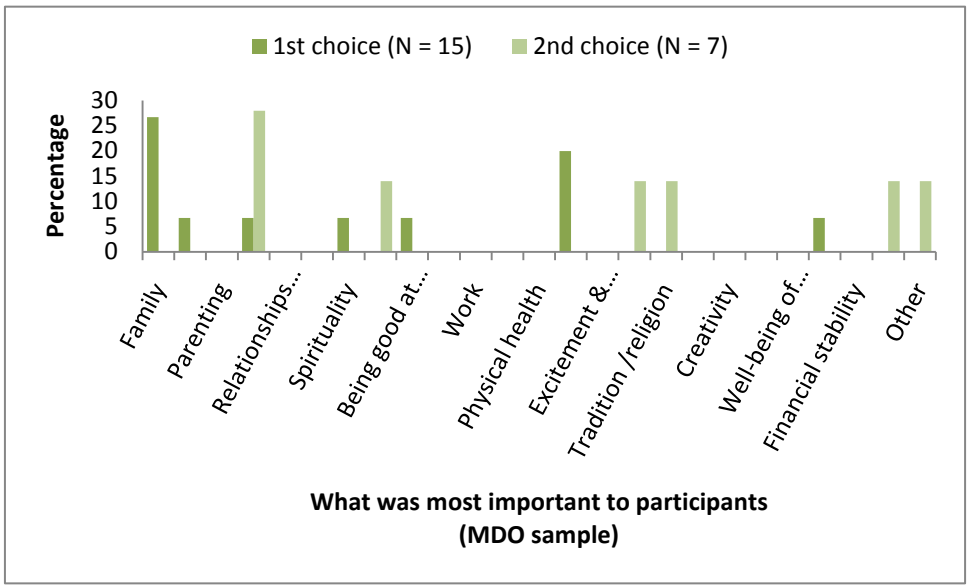
Finally, participants were asked two questions: what was important to them in life and what would make their life better. These findings are summarised in Figures 22 and 23. These questions were different to previous ones because participants were not explicitly asked about their values.

Figure 22: What was most important to participants (non-clinical sample, *N* = 102)



Relationships were of prime importance to people in the control group (Figure 22). The other prominent cluster of responses was achieving a positive emotional state for themselves or those close to them.

Figure 23: What was most important to participants (MDO sample, *N* = 15)



Relationships were also important to the MDO sample (Figure 23). However, there were additional factors that possibly reflected their current context, such as the importance of independence and stability. In this sample, safety and stability appeared to refer to a settled mental state which then facilitated the pursuit of other values such as family life or independent living.

Participants were then asked what they believed would make their life better. Table 14 provides descriptions of these factors and example responses.

Table 14: Definitions of factors that participants believe would make their life better

Value	Continued pursuit of personal values was identified as what would make life better. E.g. '*more time to follow my values*'
Value consistent goal	Response indicated that the achievement of a discrete goal associated with a personally important value would make the participant's life better. E.g. '*seeing them* [friends and family] *more often'*
Achievement of a specific goal	The achievement of a discrete goal which is not overtly relevant to personal values. E.g. '*more money*'
Less avoidance	In the future the participant wants to be less concerned with limiting and avoiding negative emotions. E.g. '*If I could control my thoughts a little more and stop worrying*'
An emotional state	The achievement of a positive emotional state for themselves or those close to them would make their life better. E.g. '*have forever happiness*'
Nothing	Nothing would make their life better. E.g. '*not much at the moment, am happy as Larry*'
Overcoming perceived barriers to 'valued living'	Individual believed that emotional or practical barriers needed to be overcome before values could be pursued. E.g. '*to get out of here* [psychiatric care]'
Don't know	The participant did not know what would improve their life. E.g. '*I don't know*'
Other	

Figure 24: What participants believed would make their lives better (non-clinical sample, *N* = 100)

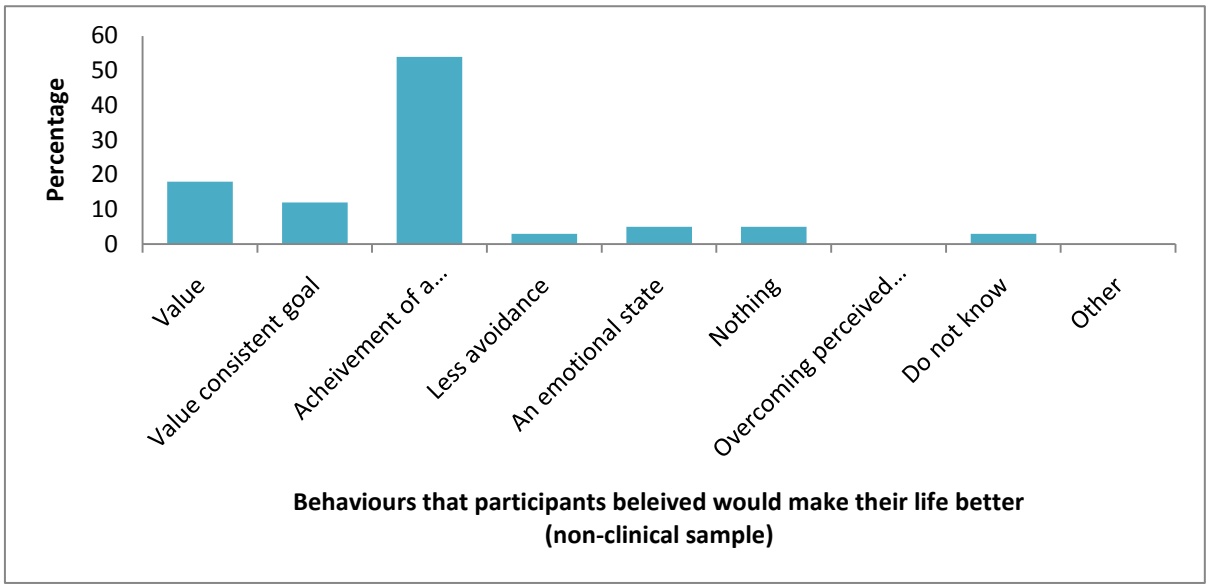


Figure 24 suggests that the achievement of a specific goal (e.g. losing weight or more money) was most frequently identified as having the potential to make life better for the control group. This goal was not obviously related to the values that had been identified as salient. Following this, the two categories related to values-consistent action were identified (e.g. being a good partner or spending more time with loved ones).

Figure 25: What participants believed would make their lives better (MDO sample, *N* = 15)

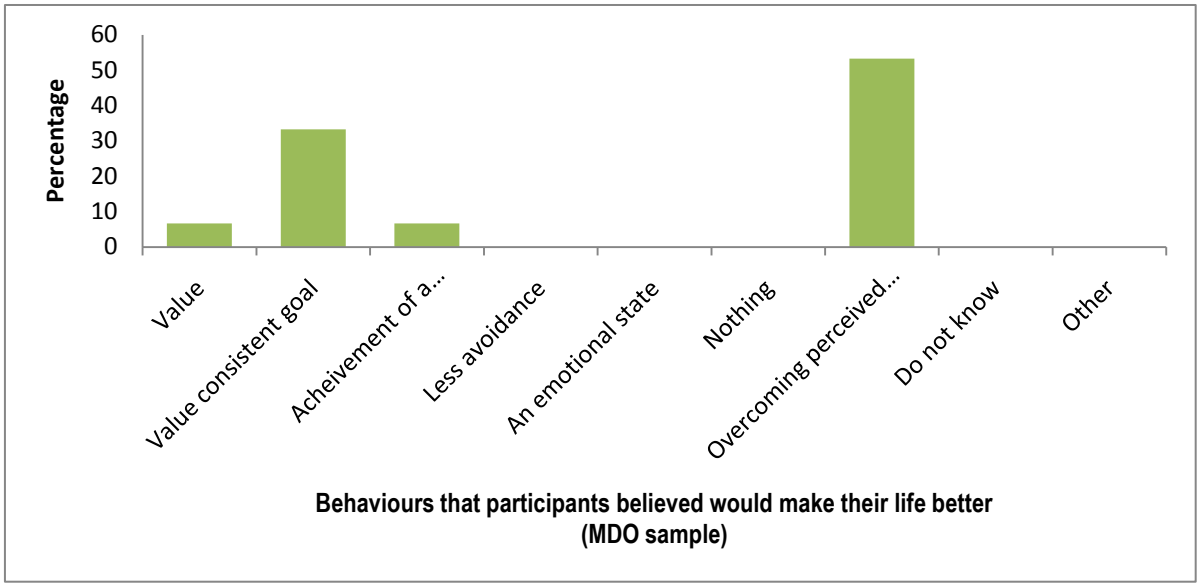


Figure 25 suggests that all the participants in the MDO sample were able to think of what would make their life better. The most frequently identified category was 'overcoming perceived barriers to valued living'. These responses suggested that people wanted to be outside of the psychiatric and legal systems, because the restrictions placed on them prevented them from having the life they wanted.

4.2.3.4.1 Summary

Relationships were identified as the most meaningful aspect in all participants' lives. For the control group, this was followed by achieving a positive emotional state. This may suggest that participants were more likely to strive towards positive emotional states than avoid negative ones. However, for the MDO sample, relationships were followed by safety and stability.

In terms of what would make their life better, achieving a goal was the most frequent response from the control group. The relevance of the goal to the individual's important values was not immediately apparent. Second to this was the ongoing pursuit of a value or a goal consistent with values. For the MDO sample, overcoming obstacles to values was the most frequent response. The obstacles identified generally referred to involvement in the legal and/or psychiatric system.

4.3 Discussion

Study 3 constituted an initial exploration of how people view values, their origin and the factors that maintain them. The results will be discussed in the same format in which the results were presented.

The coded responses appear consistent with the ACT literature. It could be that an alternative theoretical basis for coding the responses would also be valid. However the researcher was interested in investigating how the ACT model related to people's experience. Overall study 3 provides support for the ACT model as a structure for formulation and a framework that has theoretical and practical value to clinicians.

4.3.1 Current presence of values

4.3.1.1 Summary and interpretation of results

Both samples reported that values were something they had contemplated recently, and these thoughts predominantly related to evaluating their life in terms of their values. It would seem that those in the control group thought more about achievable goals than abstract guiding principles. In addition, the MDOs reported thinking about the historical presence of values. These thoughts appeared to be a positive experience for them, rather than an evaluation that generated negative emotion.

Values associated with relationships were reported as the most important to both groups, which could suggest that the VLQ's focus on relationships is appropriate. This trend was consistent with the value profile of the control group obtained in study 2, but not that of the MDO population. For them, 'benevolence' was rated as significantly less important, and this seems to be a discrepancy. It was more difficult to categorise the values that people believed were unimportant to them, possibly because these were less tangible and harder to detect on a daily basis.

It would seem that the control group observed plenty meaningful experiences while the MDO group identified 'some'. Few people in either group reported the total absence of meaningful experiences, which could suggest that values consistent experiences are present in both samples and therefore of clinical relevance.

Values were predominantly viewed as reflecting personal choice, which complements ACT's assertions that individual should choose their values. However, a significant portion of the control group attributed the selection of meaningful values to 'life circumstances' which may challenge the degree of control people believe they have in this decision. For the MDOs this was just as prevalent. Those who did not attribute their values to personal choice, mainly reported that they would not choose different ones themselves. Those that did chose values related to relationships (e.g. parenting), which require the involvement of another person and therefore are not within the explicit control of the individual. For the MDO sample the values they would prefer to pursue were perceived as incompatible with their detention in secure care. This was the first indication that psychiatric care is perceived as incompatible with meaningful value consistent action.

4.3.1.2 Clinical Implications

It would seem that people predominantly have evaluative thoughts about their values. Therefore a values focused intervention may fit well with those seeking psychological interventions. The suggestion that people think in terms of goals rather than values has implications for the therapeutic intervention. Individuals' attention would need to be drawn towards the themes (i.e. values) that link salient goals because they may not do this automatically, especially if they have high rates of cognitive fusion. This would facilitate a values context, within which actions are interpreted and referred to throughout therapy.

In study 3, the MDO population reported that interpersonal relationships with others were important to them. However, the results of study 2, suggested that such values (benevolence) were significantly less important to them than the control group. This discrepancy raises several questions. It could be that study 2's results reflect how people currently are, and study 3 is indicative of aspirations. The discrepancy may reflect the fact that these values are an important goal, but may not reflect the kind of person the MDOs believe themselves currently to be. Future research could inform whether this reflects an inner conflict that makes it difficult for them to successfully pursue relationships, but their hope of doing so increases while in secure care. Understanding this discrepancy, the source of it and what maintains it may prove helpful to clinical work. Further exploration of this with this population is necessary, but it may point towards treatments that address social skills and attempt to resolve interpersonal difficulties. This could lead to a reduction in this discrepancy over the course of rehabilitation.

ACT interventions encourage people to guide their actions by the direct contingencies for behaviour. However, several MDO participants spoke of how contemplating good memories was a positively reinforcing value consistent action, and that this was the only action they had the opportunity to perform in relation to particular values. The memory therefore becomes the most effective way for them to access the intrinsic reinforcement of a value. This appears inconsistent with the ACT goal of not 'living in the head'. It is likely that in order to allow people to regain contact with their values, spending time thinking about the past or imagined future could initially be more helpful than maintaining contact with the present moment. It may be that the therapist could work with them to gradually experience this value in daily actions and notice the reinforcement opportunities that the action would generate. If there were no transition to overt behaviour, then contemplating these memories would no longer be considered 'workable'.

4.3.1.3 Theoretical Implications

Within ACT, this area has received relatively little theoretical attention. Those values identified as important by the non-clinical sample seem compatible to those proposed within ACT, but ACT may need to expand its conceptualisation of values and value-consistent action to include remembering. The observation that people do evaluate their life in terms of values and corresponding goals also complements ACT's propositions and suggests that orientating therapy towards the pragmatic truth criterion is appropriate.

4.3.2 Maintenance of values

4.3.2.1 Summary of results and interpretation of findings

Positive reinforcement appears to be crucial to the maintenance of important values, and this is consistent with ACT's suggestion. Overall the concept of reinforcement was related to intrinsic rather than extrinsic reinforcement. Often responses concentrated on the nature of the reinforcement received from the value rather than the reinforcement that can be experienced from their participation in pursuing the value. For example, if relationships were important, responses referred to the support the relationship provided them with rather than the reinforcement they received from being an active participant in a mutual relationship. Unimportant values were primarily maintained by agumental RGB. These values were perceived as incompatible with important values or as leading to undesirable hypothesised consequences. However, for the MDOs direct experience was at least as important as augmental RGB, which may reflect a higher prevalence of previous trauma and difficulties.

4.3.2.2 Clinical Implications

The information about what maintains values is possibly the most clinically relevant. Having an awareness of these factors could aid assessment and intervention. Improving individual's abilities to monitor the intrinsic reinforcement opportunities and consistently emphasising this in therapy may maintain the values and lead to greater success at 'valued living', especially because increasing toe cognitive support for values may strengthen them (Maio *et al*., 2001).

However, it could be that some values are inappropriately discounted as not personally meaningful because of augmental RGB. This kind of RGB is difficult to contradict. It would be unlikely that a verbal discussion about the relative merits of the value in question would contradict the assumption. However, within a clinical intervention testing these assumptions could occur through behavioural experiments and these may allow people to make informed decisions about what is meaningful to them.

4.3.2.3 Theoretical implications

Most of the ACT literature appears to suggest that RGB is detrimental. However, the responses suggest that there is validity to the idea that RGB has positive and negative repercussions for individuals. Both experiential avoidance and contingency shaped behaviour were identified as factors that maintain values as meaningful or not, and they are both types of tracking RGB, however one is considered functional and one less so. In both samples, contingency shaped behaviour was prominent. Similarly, augmental RGB was also prevalent; in the case of values this is considered appropriate, but if it is preventing the pursuit of a value (e.g. because of the hypothesised consequences) then it may no longer be functional.

Intrinsic positive reinforcement seems to be a key factor that individuals identify as maintaining their values, which would support both ACT and Schwartz's assumptions. It also suggests that augmental RGB is very relevant to values. However, from analysing the data obtained, it would seem that the division between augmental and other forms of RGB is unclear. For example, the idea that certain values (e.g. stability) provide access to other values (e.g. independence) means that it can be a grey area whether some values are purely maintained by intrinsic reinforcement or pliance. At times it can be difficult to interpret behaviours in terms of RGB, for example experiential avoidance and contingency shaped behaviour are both tracking RGB but one is more 'workable' than the other.

4.3.3 Origin of values

4.3.3.1 Summary of results and interpretation of findings

Assessing the perceived origin of important values proved difficult to ascertain, and the responses obtained suggest that this was not something that individuals had spent much time thinking about. However, the role of previous experience appeared key. This included previous positive and aversive experiences and the consequences which arose from the lack of particular values. Anecdotally, several MDO participants found this a difficult question to answer, stating that values were important because they always had been.

4.3.3.2 Clinical implications

To some extent understanding the origin of values may appear irrelevant to a psychotherapy such as ACT, which focuses on future behaviour rather than resolving past difficulties. However it could be that this knowledge is necessary to ground values work in a framework that is concrete and personally relevant to the individual. An awareness of an individual's previous experiences of values could provide insight into the potential obstacles to future value-consistent action. This latter point could be especially relevant to working with an MDO population. However their difficulty with this question may mean that this work should be tackled differently. One possibility could be that each individual could be guided through a discussion about their experience and the potential salience of various values.

Generally within ACT the therapist works with patients to identify values to increase awareness of intrinsic reinforcement without judgement or evaluation. A value should be considered important for its own sake rather than reasoned arguments. However previous research suggests that a lack of cognitive support weakens values (Maio *et al*, 2001). The idea that values are important because they always have been may reflect a lack of cognitive support for them, therefore once values have been identified by a MDO, generating cognitive support could be a focus of interventions. The exploration of these reasons may seem more compatible with traditional cognitive models of therapy and at odds with ACT, which specifically aims to undermine the effects of evaluation on behaviour.

4.3.3.3 Theoretical implications

ACT assumes that values are chosen and reflect who the person wants to be and contact-with-the-present-moment is encouraged. Therefore, it makes little reference to the link between personal history and values. However addressing the history of values could provide clinically

relevant information. Although some values may have arisen from ongoing positive reinforcement, this may not be true for all. In some cases, avoidance of pain or augmental RGB may have been very influential.

Research surrounding Schwartz's model suggest that exploring the reasons for a value's importance is more likely to facilitate value-consistent action. Analysing the reasons underlying values strengthens them (Bernard *et al*., 2003), activating salient and concrete reasons for values values increases the likelihood of value consistent action (Maio *et al*., 2001) and goals that reflect self-interest are more likely to be achieved (Koestner, 2002). Although ACT seeks to undermine the processes associated with language, it may be that facilitating these discussions would strengthen rule-governed behaviour that achieves valued action. However, it would be important that these discussions did not lead to the over-intellectualising of valued action.

4.3.4 Final questions

4.3.4.1 Summary of results and interpretation

Most of the control group stated that relationships were currently the most meaningful aspect of their life. However the responses obtained suggest that people do not categorise relationships in the same way as the ACT measures suggest. The concept of 'framily', i.e. that close friends are similar to family members was apparent. The MDO sample identified a greater range of values that were important to them. The importance of freedom and independence was apparent in this population, and not in the other sample. It could be that the sample size was too small to allow sufficient generalisation beyond this sample.

Finally participants were asked what would make their life better. For the control group, the most prevalent response was the achievement of specific goals not immediately relevant to their salient values, such as having more money or losing weight. Values and value consistent action were the next most popular responses, e.g. providing for children to be a good parent or spending time with loved ones instead of work. Few participants were consciously pursuing an emotional goal (e.g. happiness).

However in the MDO sample, overcoming perceived obstacles to values was regarded as the predominant factor that would make life better. This category consisted of responses suggesting that involvement in the psychiatric and legal system prevented individuals from pursuing what was important to them. Whether this perception relates to a tracking or augmental RGB is

unclear, but if it were because this sample focused on an imagined future then an ACT intervention could be helpful to this population. The second most frequent response was related to the achievement of a goal consistent with the values they had identified. These responses suggest that values are important to the MDO sample. The responses obtained from earlier questions in study 3 suggest that there is little difference between which values are prioritised by each sample.

4.3.4.2 Clinical implications

Distinctions between relationships are helpful to research. However, therapists need to be aware that the distinctions that have been imposed in established measures may not be the same as the distinctions that patients would make. In clinical situations, any distinctions between relationships need to be individualised to facilitate a shared understanding of what is meaningful.

The responses of the MDO participants suggest that the care received in secure units is perceived as inconsistent with values. This is reminiscent of the ACT suggestion that the pursuit of values is postponed until obstacles are removed. Whether this equally applies to all values is unclear. While the system prioritises health, stability, self-fulfilment these may not be self-defining to patients. Success at achieving goals is greater when they are self-defining (Koestner *et* al., 2002). The absence of other values (e.g. relationships and independence) may increase their salience and therefore their current situation seems incompatible with their values. It seems as though the message of the recovery model, and that this model is supported by the system is yet to filter down to these patients. The GLM and recovery model need to move from a framework used by staff to one that is meaningful and understood by patients. The MDO population may require more explicit work to address this aspiration, because psychiatric care provides different opportunities for value-consistent action that were unavailable in previous lifestyles.

It could also be that this population thinks in terms of discrete goals separate from an abstract value framework. It could be that they are pursuing their values but not appreciating the wider context, or it could be that people focus on immediate contingencies rather than long-term ones. Such a framework would allow greater compatibility with the process of rehabilitation, and establishing this would be a part of a clinical intervention. These questions attempted to measure people's naturally occurring opinions, following an ACT intervention their responses may be different.

4.3.4.3 Theoretical implications

ACT rejects the assumption of healthy normality which suggests that people strive towards positive emotional states. These results suggest that this may not be something that people consciously strive towards outside of clinical settings. However, it could be that this assumption becomes activated at times of distress, in which case addressing it is an important part of interventions with clinical populations.

The MDO sample rated conservation as more important than the control group. During the interviews, they spoke of the importance of stability in presentation and mental health. It would seem that this is not a 'value' but instead represents a desire to avoid distress. Amongst the MDO population this could be considered functional experiential avoidance because distress has had a catastrophic impact on their life and those of others. Practically, a degree of stability is necessary before other values can be pursued. For them, the pursuit of stability and a sense of safety is similar to the pursuit of physical health, it is an ongoing process that may never be fully achieved. Therefore they may conceptualise it like a value and would be a form of augmental RGB. In the long-term it may be that working towards stability will not facilitate a meaningful life and that for most populations this goal would stifle values; however, for the MDO population, it could be necessary. They may need support to identify the point at which this is no longer helping them to achieve their values.

Some texts about the GLM appear to imply that primary goods are the sole factors that facilitate a fulfilling life. The results obtained suggest that operationalising these values may not be straightforward. Self-reports from the MDO sample provide some empirical evidence for the GLM model. It would appear that the list of GLM primary goods would be a valid list of what is important to this MDO sample. However, it is missing the idea of safety and stability that is present in their self-report. The GLM also contains happiness as a primary good, but this was not identified by the MDO sample. If this were the desired outcome, ACT would consider this to be an emotional goal and therefore incompatible with its definition of a value. This is not a good that can be guaranteed from a clinical intervention, and therefore the appropriateness of establishing it as a therapeutic goal is questionable. It would seem more likely that happiness could be an indirect consequence of pursuing the other goods.

5. General Discussion

The interpretation of results and the corresponding clinical and theoretical implications have been presented. The general discussion will focus on the researcher's reflections about undertaking this work with an MDO population, an evaluation of the study and suggestions for future research. It will end with a broad summary of the findings and their implications.

5.1 Reflections on the research with MDOs

The process of completing this research with the MDO population generated interesting observations that will influence the researcher's future clinical work, and these will be discussed.

Firstly, the process of discussing what is important to patients improved the researcher's relationships with them outside of the research context. Most of these participants reported enjoying taking part in the research. It was a topic that appeared to engage them and held their interest. This experience adds support for the potential benefits of these conversations to the therapeutic relationship. A values-focused strategy appears to be of interest to this population that is difficult to engage.

A clear discussion about what is important to individuals facilitated a better understanding of the whole person. On occasion the value profile generated for an individual was not what would be expected from reviewing medical notes or casual interactions within the ward. It therefore seems appropriate that values should be incorporated into broader psychological assessments, such as admission assessments.

For two MDO participants, their important values were entwined with their delusional beliefs. For some individuals this raises the possibility that compulsory treatments threaten what is meaningful to individuals. For example, one participant identified spirituality as their most important value, and they identified daily conversations with God and occasional visits from holy figures as meaningful value-consistent action. As the discussion progressed it became clear that this value had a significant delusional component. In this case, the purpose of medication or psychological interventions could be interpreted as the removal of a meaningful value. This emphasised the importance of a full assessment of symptoms, their function and the meaning attached to them, including the possible benefits. Such information would be crucial to someone delivering an intervention or providing them with appropriate care.

There may be a developmental aspect to values. Younger participants placed greater importance on friends, and those that were older emphasised family (if they had any). While this may seem to be an obvious conclusion, it needs to be translated into clinical practice. Service provision usually occurs on the basis of what would be important to most people. However this could lead to inappropriate generalisations. An awareness of how variables such as age affect values may provide guidance for therapists undertaking value clarification work with people who have discounted the possibility of pursuing meaningful values.

Despite the investment that has gone into promoting the recovery movement and associated staff training, MDO patients appear to view their admission as an obstacle to pursuing values. This population is faced with greater restrictions than other clinical populations; however the opportunity to pursue values is not viewed as obsolete by staff. To some extent this stance is helpful to the rehabilitation process because it provides a motivation to work towards discharge. However, it limits the opportunity for value consistent action during admission and suggests that the recovery approach and its implementation may not be fully understood by this patient group. This population has literacy problems and cognitive impairment, therefore promoting recovery may need to be made more explicit, this could be done via explicit values work.

An ACT consistent intervention requires that individuals choose which values they want to pursue on the basis of its potential for intrinsic reinforcement. However, several MDO participants indicated that they were not in a position to choose their values. It was not that they believed values were imposed on them, but that the opportunity for pursuing most values had been taken away by the restrictions they were under or the consequences of previous actions. This represents a challenge to clinicians, who may need to creatively generate the opportunity to experience and pursue values which had previously been discounted.

ACT suggests that people lose sight of their values when they are distressed. However, it is possible that some members of the MDO population have never had clarity about values. The ACT model is unclear about whether therapists should generate new values with people, and how this would be done. This would require careful consideration because it is self-defining values that have a stronger relationship with behaviour (Verplanken & Holland, 2002). High degrees of psychological inflexibility can impair contact with values, in which case values identification is postponed to later in the intervention (Harris, 2009). However, it appears to aid

engagement and so should be addressed early. A solution to this could be to use a structure such as the GLM initially, as long as it is clear that the list of values will become more individualised.

ACT interventions also encourage 'self-as-context', a process by which individuals conceptualise different experiences as different aspects of themselves while realising that they are more than just these experiences, thereby achieving a more integrated sense of self. However during discussions with the MDO participants, it would seem that they maintain two different self-concepts: the 'unwell me' and the 'well me'. It may be that they find it difficult to reconcile their previous presentation and actions when unwell with the 'well me'. This point of view is often encouraged, as it is seen as helpful to allowing people to move on. Reconciling these points of view to fully achieve psychological flexibility in this population could be hindered by a potential reluctance to accept responsibility for previous actions, and is likely to be a terrifying experience for them. The relative merits of changing this stance could be debated and deserve careful consideration. It may be that it would be helpful to encourage self-as-context and psychological flexibility in relation to the 'well me'; but that incorporating their previous actions (e.g.: index offence) and associated shame and guilt may be counterproductive to facilitating a valued life in the present. An awareness of the individual would be crucial to identifying how 'workable' psychological flexibility is to the individual and how it could alter the risk of violence they pose in the short and long-term.

An interesting theme to the discussions arose which appeared to describe a concept of 'gateways to values'. These were goals that were important because they facilitated access to more meaningful values and goals. For example, stability was often prioritised because it was positively reinforcing to the individual and also increased the likelihood of moving towards the community where they would be in a better position to pursue different values, e.g. independence and relationships. However, they anticipated that once they left secure care, relationships and independence would become prioritised but stability would need to be maintained so that they did not return to secure care. The issue then arises about the extent to which the importance of stability is maintained by augmental RGB or has become a form of pliance.

The attraction and potential rewards of a value cannot be assumed by the therapist from the outset of an intervention. The discussions highlighted the difficulty of establishing when experiential avoidance is appropriate and when it is not. ACT suggests that it is only targeted

when it interferes with the pursuit of values. In the case of relationships, it may be that previous relationships were characterised by abuse and exploitation, in which case, avoiding pre-existing relationships would be conceptualised as an appropriate course of action and so should not be targeted. Avoiding all relationships would be an overextension of a strategy that works in a limited context. However, finding positive new relationships is challenging for this population. Interventions to help them access positive relationships (e.g. befriending) may be necessary.

5.2 Strengths and Limitations of this research

The strengths and limitations of this research have been evaluated according to the sample, design and procedure of all three studies.

5.2.1 The sample

By using a non-clinical sample, it was possible to examine and compare 'valued living' and the associated processes between the non-clinical sample and those with SEMI and a history of interpersonal violence. The inclusion of this non-clinical population was considered a strength of study 1 because an understanding of these processes in non-clinical populations is required before it can be investigated in a clinical population. There were sufficient participants in study 1 to inspire confidence in the results among this population . However, there is also a possibility that the act of participating in the study introduced a bias to the results, because there was no personal gain associated with participation and it could be assumed that the participants were predisposed towards valuing benevolence of universalism.

The extent to which these findings can be generalised beyond this study to clinical samples is unclear. This was a non-clinical sample with low levels of psychological distress. Therefore the results are not representative of those experiencing psychological distress. It may be that the nature of the relationships measured in study 1 would be different if a population with greater variance in psychological distress and inflexibility had participated. The use of such a population would allow conclusions about the relationships observed to be applied to psychopathology.

The results obtained in study 1 may be influenced by biases within the samples' characteristics. This sample was highly educated (87.3% were educated to tertiary level) and this could have acted as a confounding variable. It is possible, that the level of education would predispose the sample to valuing self-enhancement values or may obscure the detection of relationships between the variables assessed. Other confounding variables include socio-economic status, as the online administration of the measures may have unintentionally excluded those of a lower

socioeconomic status. Therefore, this sample cannot be considered representative of the general population.

The use of snowball sampling methodology means that it is not possible to trace which participants approached took part in the study. Although some participants were approached by the researcher at leisure facilities and were therefore unknown to them, a significant proportion were friends and acquaintances of the researcher. Colleagues within the same place of work as the researcher were not asked to participate in the study in order to reduce the potential for the sample to be biased by those with a psychological background. However the possibility that this sample had a greater level of psychological awareness remains and should be considered. An awareness of psychological constructs may have led to these participants responding in a manner that was consistent with the researcher's aims. Alternatively, they could have prevented individuals responding honestly because they wanted to present themselves in a certain manner. Both of these factors could obscure the nature of the relationships examined and introduce a bias into the results. If the sample were mainly comprised of acquaintances of the researcher, then it may be that the responses reflected participants' desires to respond consistently with their perception of the researcher's aims.

To overcome these potential limitations, future research should make a concerted effort should be made to target individuals from a variety of socioeconomic, educational and occupational backgrounds. In order to facilitate this, it may be that alternative methods of data collection should be employed such as the use of postal measures, which may have a lower response rate or face-to-face interviews.

The sample size in study 2 was relatively small (N = 15 in each sample), and insufficient to detect a large effect size according to the prospective power analysis. While this could be considered a weakness in this study, it would be considered a high response rate in the context of secure psychiatric care. To obtain ethical approval recruitment was comprised of several steps. Individuals were initially approached by a member of the clinical team other than the researcher. Direct or repeated approaches could have generated more participants. The medium secure unit constitutes a small community where the researcher is known, therefore this indirect approach was considered crucial to ensuring that participation was voluntary. Despite efforts to increase the sample size, it transpired that recruiting from another Scottish medium secure unit was not possible. Of those patients in the clinic who met the inclusion/exclusion criteria, 50%

participated. Therefore, despite the small numbers for statistical purposes it represents a good recruitment rate for this population.

The definition of a 'mentally disordered offender' is a legal one that predominantly pertains to the restrictions and care imposed upon certain individuals because of offending behaviour. Therefore, it is a heterogeneous group of people with a variety of clinical needs and offence types. Although this sample is representative of that encountered by clinicians in the field, it is possible that differences within the sample related to mental illness or offence history could have obscured potential relationships between variables or prevented the identification of salient values. It is recognised that isolating variables such as offence type, specific symptoms of mental illness would be more methodologically rigorous and could potentially illuminate differences within this population. However, by doing so the numbers of participants would have been insufficient for quantitative analysis and would compromise the anonymity of these participants. It would also have altered the extent to which this sample was representative of clinician's caseloads. With greater numbers of participants the impact of these variables could be investigated, but due to the relatively small numbers of individuals who comprise this population and the difficulties of engaging them, such a study would require a significantly longer time-scale.

Although offenders without mental illness and in the prison system may appear to be a more homogenous group to investigate, this may not be the case; over 90% of prisoners have a psychiatric diagnosis (Singleton *et al*., 1998) and they would also have been convicted of a variety of offences. However, in Scotland the responsibility to provide mental health care within prisons does not currently lie with the NHS and is internal to the Scottish Prison Service. In contrast, those who require secure psychiatric care fall under the remit of NHS Clinical Psychologists as part of a multi-disciplinary team. The researcher chose to study MDOs rather than offenders because of the significant cost to the health service that their care generates and the challenges they present to clinicians. MDOs in psychiatric care often require ongoing care and support to live in the community, unlike prisoners who receive comparatively less support once they are released. Therefore clinicians potentially need to work with MDOs over an extended period of time, and require a model and relationship that will allow them to do so. These considerations, the clinical need present in this population and the clinical move towards a 'good lives' approach meant that this was an important clinical population to examine, the presents more immediate challenge to clinicians working in NHS Scotland.

There was a variety of reasons that informed why MDOs were compared to a non-clinical comparison group. The researcher has observed that this clinical population experience stigma in the healthcare system and society, and it was hoped that this research could be informative of similarities between this population and others, and therefore contribute to social inclusion. Ideally this research would have occurred with five populations (a non-clinical, AMH, community SEMI, prison and MDO sample) to facilitate comparisons. However, the likelihood of succeeding with this was thought to be unlikely within the constraints of a time-limited thesis. The extent to which the divisions between these populations represents clinical differences would also have deserved consideration. The divisions between these populations are created by both the legal and medical system and may reflect personal circumstances (e.g. whether they were convicted of an offence or physical and social environments that increase the likelihood of violence) rather than underlying pathology and therefore are somewhat arbitrary.

The two samples in study 2 were only partially matched, and therefore could not be considered entirely equal in every variable. The generation of a random sample was likely to have generated a control group that was predominantly female with a broader age range. To reduce the possible bias this could have introduced to the analysis it was decided that attempting to match the samples as far as possible would be preferable in order to make the comparisons fairer. However, the two samples differed in terms of education and relationship status and these may have acted as confounding variables.

5.2.2 The design

The three studies presented constitute an exploration of areas which have received little attention in clinical research. While it seemed likely that these factors would be related, this had not been established. Although the predictions within in the literature and hypotheses made intuitive sense, it is important that they are not assumed to be fact. Therefore it was considered that the first step in this area should be to establish the nature of any relationships that existed, therefore the statistical analysis concentrated on correlations and differences. While there were sufficient numbers in study1 for a regression analysis, decisions about which variables constituted predictor or criterion variables would have been arbitrary and so this analysis was considered inappropriate at this stage. It was anticipated that more specific aspects of any relationships could be examined in future research, but the current design was broad enough to generate an initial impression.

The decision to examine the processes of experiential avoidance and cognitive fusion in relation to a broad definition of psychological distress was made to establish general trends. Other studies have typically been disorder-specific, but establishing general trends initially was thought to be useful.

It may be that there was a more succinct way to answer some of these same questions. This could have been done with shorter measures that generated total scores. Alternative measures would have been more viable if this study had not assessed two very different samples. To find measures that were equally applicable to clinical and non-clinical samples was challenging, but the quality of measure was judged to be paramount and this guided their selection.

In the studies, several confounding variables were unaccounted for (e.g. cognitive functioning, substance misuse, religion, occupation and social deprivation). It was decided that implementing broad inclusion/exclusion criteria for both groups was preferable to more stringent criteria. The introduction of more exclusion criteria would have reduced the potential number of participants from both samples which could create an artificial impression of both samples. It is considered a strength of this study that the MDO sample assessed is a sample encountered in daily clinical practice in this setting. Stricter exclusion criteria may have reduced the clinical utility of this research.

Previous research associated with the measure suggested that value profiles are not influenced by social desirability (Schwartz *et* al., 1997) so this was not investigated in this study. However, this possibility can not be ignored. Previous research (Fisher and Katz, 2000) suggested that any influence would be minimal, but this research is sparse and it is not informative of the impact that a personal or professional relationship between the participant and researcher could have on social desirability. It could be that this could have exacerbated participants desire to endorse those values they perceived as socially acceptable or to respond in a manner they perceived to be 'correct' and consistent with the researchers aims. Although the participant information sheet (Appendix 5) was careful to not try and influence responses, it is possible that this information or interactions with the researcher unintentionally predisposed participants to respond in a certain manner.

There is a lack of research specific to the MDO population. That which exists tends to focus on issues related to risk. However, there has been a recent move from interventions focused on managing risk to those that encourage 'good lives'. It is considered that this study is respectful

of the MDO population and can contribute to applications of positive approaches to them, which have received little empirical attention. The results obtained should contribute to engaging this population in therapeutic endeavours.

5.2.3 The procedure

The merit of using online questionnaires was debated. Internet based research is considered to offer many benefits (Newns *et al.*, 2009). The online questionnaire was considered to be more practical due to the number of potential participants who could be approached and the ease of administration. There is little difference between measures that are completed online and those on paper. This applies to demographic variables (Newns *et al.*, 2009) and the responses provided to multiple choice and short open-ended questions (Huang, 2006). Participants also regard internet-based surveys to be shorter, more enjoyable and better at preserving anonymity than paper measures (Huang, 2006). In comparison with the face-to-face interviews, briefer responses were obtained. However, on balance, it was decided that this method of data collection could prove advantageous and allow statistical power to be reached.

During study 2, some difficulties with administering measures to the MDO population were observed. In terms of the ACT measures, MDO participants found it difficult to cope with double negatives, and the concept of control that is alluded to within them because they are very conscious of the lack of direct control they have over their life. It had been anticipated that all the measures would be appropriate because they have been used successfully with similar populations and/or had an appropriate reading age. However, the cognitive impairments experienced by this patient group may have contributed to difficulties understanding the measures. Therefore the delivery of the measures had to be individualised with different levels of explanations. How this impacted upon the psychometric properties of the measures was unclear, but it is likely that this meant the MDO sample received greater clarification of items than the control group. This consideration should be borne in mind for clinical interventions.

The process of 'valued living' is difficult to measure. The VLQ and PVQ have different merits. They both are considered representative of the models from which they are derived. The PVQ attempts to measure underlying values, while the VLQ targets the concept of values as a process, therefore they are different. On a practical level, it appears that participants had some difficulties completing the VLQ. Some comments suggested that some were unsure what was being asked of them when they were asked to rate the consistency with which they lived with personal

values. Within the interviews with MDOs, this required careful clarification. It is a self-report measure and there is a possibility that the same importance and consistency ratings hold different meanings for different people. However, this latter criticism could also apply to the other measures.

The exploratory questions at the end of the interviews and survey were written for the purposes of study 3. Following consultation with colleagues, the questions were revised prior to administration. The responses from the online survey suggested that people understood what was asked of them. However, for the MDOs the qualitative section proved challenging and they found it difficult to articulate their responses, even when provided with prompting and guidance. Certain questions required clarification, especially, those related to the origin of values. It had been hoped that these questions would allow any differences in how values develop between the MDO sample and the control group to become clear. However, this was not the case. It is possible the questions were too abstract, especially if this group think of values in more concrete terms than the general population (Maio, personal communication, 19/11/09). Further research may want to consider a qualitative approach that included MDOs and people who know them well. Or it could be that following delivery of ACT in these settings, how this question could be better addressed would become clearer.

5.3 Recommendations for future research

The fact that this study was an exploration of the issues raised has generated recommendations for future research. Throughout the discussion, allusions to possible research questions have been made. However it appears crucial that the research questions receive greater attention in a range of clinical populations to establish the relationships investigated. Examining these relationships in populations such as those with severe and enduring mental health problems or offenders without mental illness would provide insight into where the differences observed in this study lie.

Whether values are truly transsituational still requires to be established. For those within psychiatric care, it may be that values change depending on where a person is in their rehabilitation journey. It may be that certain values become relegated when a perceived degree of competence has been achieved. Therefore, conducting a similar study at several time points could provide an interesting insight into values and when values are truly a value and when they represent a form of pliance or other RGB.

The concept that MDOs have different values to the non-clinical sample has not been fully established. The small participant numbers and heterogenous nature of the group may limit generalisation. Therefore a replication of study 2 with more participants and fully matched samples is warranted. This would allow these findings to become more established.

A negative relationship between 'valued living', psychological distress and psychopathology was observed. However, future investigation should examine whether this is because pursuing what is important to individuals is placed on hold until distress is resolved, if this relates to specific values or if there is a more fluid relationship where values diminish as distress increases. A qualitative approach in non-clinical and clinical populations may provide insight that would help us understand the impact of distress on values and provide direction to interventions.

5.4 Overall summary and conclusions

The role of individuals' values is increasing in prominence in healthcare at local and national levels. It is assumed that this will facilitate an increase in QoL. However, there was little evidence to support this. Study 1 demonstrated that living in accordance with personally meaningful values is positively correlated with QoL and negatively with psychological distress, experiential avoidance and cognitive fusion. This suggests that a focus on individuals' values is valid, and may offer an alternative method for evaluating interventions. This would be particularly true for those for whom symptom eradication is unlikely. 'Valued living' could provide an alternative treatment goal that would be personally salient. These findings are applicable to many models of therapy.

Healthcare has been lacking a clear definition of the term 'value' that could provide professionals with practical guidance. The literature presented proposes definitions for this term. However the cumulative results suggest that two key aspects of this definition are intrinsic reinforcement and their transsituational nature (i.e. that values are a hypothetical construct that provides ongoing guidance).

ACT is a third wave behaviour therapy that aims to change the relationship people have with their distress rather than its form or frequency. Facilitating a 'valued life' is at the centre of this intervention. ACT proposes that psychopathology is maintained by three main processes – experiential avoidance, cognitive fusion and RGB. All three were related to the process of 'valued living'. Values are fundamental to ACT, however it was suggested that those proposed in the model may not be equally applicable to all. Therefore Schwartz's model of human values was introduced. Although it was established from a different theoretical background from ACT, it employed a similar definition of values.

The MDO population presents a number of challenges to clinicians. They are typically reluctant to engage in psychological therapies. They have a range of clinical needs and offending behaviour and are at risk of low QoL. As well as the impact on the individual, this has implications for risk management. The addition of Schwartz's model provided insight into how values apply to an MDO population. The MDO was found to attribute greater importance to the self-enhancement value domain and less to the self-transcendence domain than the control group. However, this did not mean that the self-transcendence domain was unimportant. It was

suggested that these differences may be linked to the avoidance of distress rather than a distorted value set. This model generated insights that are useful to clinicians and could influence the nature of interventions provided. Although the results were thought-provoking, the model appeared to have limited additional benefit to the ACT model when applied to a healthy population.

ACT offers promise as an intervention suitable for an MDO population. Behaviours associated with experiential avoidance are prevalent amongst this population. Study 2 demonstrated that MDOs had higher levels of cognitive fusion, experiential avoidance and psychological distress, which would suggest that psychological interventions targeting these processes would be suitable. ACT's focus on the processes that underlie psychopathology could generate a broad benefit to this population's well-being and functioning than an intervention limited to specific problems. A focus on individualised values may facilitate engagement, and this was the experience of the researcher. This would be compatible with the GLM.

This study had several limitations and strengths which have been discussed. It represents an initial exploration of the questions raised which has added to the existing knowledge base. This exploration and its application to a MDO population appear to be a unique strength of this study. Future research questions have been identified and require further exploration to develop the knowledge obtained.

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Appendices

Appendix 1: Glossary

AAQ-II	The Acceptance and action questionnaire-II (Bond *et al*., 2009). It is a measure of experiential avoidance.
Acceptance	The 'embrace of those private events when doing so would cause psychological pain' (Hayes, 2006, p.7). Its full term is experiential acceptance and it is the opposite of experiential avoidance.
Acceptance and Commitment Therapy (ACT)	A third wave behaviour therapy which aims to help people accept what is out of their personal control and commit to value-consistent action that will enrich life (Harris, 2009).
Achievement	Individuals who value achievement are said to aim for personal success by 'demonstrating competence according to social standards' (Schwartz, 1992, p.8) which generates access to social and material resources.
Augmental rule governed behaviour	A form of rule governed behaviour. These rules are abstract, and behaviour is pursued on the basis of the imagined consequences of doing so (Hayes, 1999).
Benevolence	A value that reflects concern for the welfare of those that an individual is in frequent contact with (Schwartz, 1992).
BOS	Bristol Online Surveys. The website that hosted the online survey utilised in study1.
Cognitive defusion	A position where thoughts and emotions are recognised as transient and flawed (Harris, 2006). It is the opposite of cognitive fusion.
Cognitive fusion	The excessive entanglement in thoughts (Harris, 2009), thoughts become very powerful and are accepted as fact and literally true. For example, the thought 'I am a bad person' is accepted as factual rather than a transient thought that will pass and does not reflect who the person actually is.
Cognitive Fusion Questionnaire (CFQ13)	A new measure of the extent to which an individual is entangled with their thoughts and accepts them to be literally true (Dempster, 2009).

Committed action	The decision to make a concerted effort to live a value-consistent life despite distress (Hayes, 1999)
Conformity	These individuals value complying with social norms. This self-restraint facilitates group functioning (Schwartz, 1992).
Conservation	A value domain that focuses on maintaining the current situation because stability Is preferred and customs are upheld (Schwartz, 1992).
Contact with the present moment	When someone is in touch with the 'here-and-now' experience (Harris, 2009) instead of ruminating on past events or the imagined future.
Contingency shaped behaviour	Behaviour that is determined by the actual consequences that are encountered, rather than those imagined or assumed.
CORE-OM	Clinical Outcomes in Routine Evaluation (Evans *et al*., 1998). This is an outcome measure that measures psychological distress. It is widely used in mental health services.
Counter-pliance	A form of rule governed behaviour, where behaviour is determined by socially mediated consequences. However the individual acts in a way that is rebellious or oppositional to the corresponding social expectations (Hayes, 1999).
Dialectical Behavioural Therapy (DBT)	An adaptation of CBT designed for individuals with Borderline Personality Disorder. It has been categorised as a third wave behaviour therapy because it incorporates the development of acceptance in individuals. While individuals participate in the four psycho-educational modules (emotional regulation; distress tolerance; interpersonal effectiveness; mindfulness) they also attend individual therapy.
Experiential avoidance	Efforts made to get rid of, avoid or suppress unwanted private events (Harris, 2009). Because of our ability to problem solve, it is a natural response to distressing stimuli. Examples include thought suppression, substance misuse and aggression.

Functional Contextualism	Philosophical approach whereby knowledge originates from understanding the function and context of an event rather than dissecting the event into its component parts (Hayes, 1999).
Good Lives Model	A model to direct the treatment and care of sex offenders (Ward, 2002). This model focuses on improving quality of life by considering various 'primary goods' which are akin to values. Offenders are assumed to be motivated by the same primary goods as other people, but that the methods employed to attain them leads to offending behaviour. It is hypothesised that this positive focus is more likely to facilitate engagement in treatment and consequently risk management. Although originally developed for sex offenders, the model is influential in forensic services more widely.
Hedonism	A value defined by the desire to have pleasure or gratification for oneself (Schwartz, 1992).
Hexaflex	The diagrammatic representation of the ACT model.
Mentally Disordered Offender	Individuals with a diagnosis of a major mental disorder and who present a risk of violence to others. They are likely to have a history of violent behaviour, but will not necessarily have a criminal record.
Negative reinforcement	This is when the absence of a consequence makes behaviour more likely to occur. An example of external negative reinforcement is if someone is not prosecuted for aggressive behaviour in a health setting, it makes it more likely to occur again. An internal example of negative reinforcement is if someone drinks alcohol an unpleasant emotion (such as anxiety) may not occur, making it more likely that they will drink alcohol in the future.
Openness-to-change (OTC)	A value domain that incorporates autonomy and a willingness to have new experiences. It is comprised of self-direction and stimulation. It is comprised of conformity, tradition and security (Schwartz, 1992).
Pliance rule governed behaviour	A form of rule governed behaviour. The rules are socially constructed, therefore the pursuit of actions is determined by what is important to others. These behaviours are not internally motivated or reinforced (Hayes, 1999). For example: responding to peer pressure.

Portrait Values Questionnaire (PVQ)	A secondary measure of Schwartz's Model of Basic Human Values (Schwartz *et al*., 2001). It is less abstract than the SVS and measures values more implicitly.
Positive reinforcement	'The provision of something that strengthens whatever behaviour went before it' (Cardwell, 1996, p. 179). It is often something that we find rewarding or want to happen. An example of external positive reinforcement is money or food, an example of internal positive reinforcement is a positive emotional state, or pleasant memory.
Power	A value defined by social status, prestige and the control of people or resources. It exists within a social system (Schwartz, 1992).
Pragmatic truth criterion	The criteria by which therapeutic progress is evaluated. In a therapeutic setting, the central question for every behaviour is 'will it help achieve a meaningful and valued life?'.
Private events	Internal psychological phenomenon that are not overtly observable, such as thoughts, emotions, memories and sensations. Other people only find out about them if they are told about them.
Psychological flexibility	The goal of ACT. It is when an individual is in touch with the present moment, their behaviour is determined by direct ('here-and-now') contingencies and is evaluated according to values, thereby encouraging their pursuit (Luoma, 2007).
Psychological inflexibility	The opposite of psychological flexibility. Individuals spend time ruminating on the past or imagined future, which means they are less aware of the direct contingencies in their environment. Experiential avoidance and cognitive fusion are prominent. Life is evaluated by the presence or absence of distress rather than what is fundamentally important to the individual.
Quality of life	'Individual's perception of their position in life and the context of the culture and the value system in which they live and in relation to their goals, expectations and concerns' (The WHOQOL Group, 1995, p. 1405). It refers to a subjective judgement by an individual.

Radical Behaviourism	An evolution of behaviourism that incorporates internal psychological events (e.g.: thoughts, emotions, memories) into its conceptualisation of behaviour (Hayes, 1999).
Recovery	A prevalent and emerging model in mental healthcare that emphasises the need to think of individuals' recovery as a broader concept than just the absence of psychiatric symptoms.
Relational Frame Theory (RFT)	A theory of human language and cognition (Harris, 2009) that contributes to the explanation of how psychopathology develops.
Rule Governed Behaviour (RGB)	Behaviour 'governed by specification of contingencies rather than by direct contact with them' (Hayes, 1999, p.27). Therefore, behaviours are enacted on the basis of a pre-existing idea of the consequences of doing so, rather than the actual experience of doing.
Schwartz's Theory of Basic Human Values	A cross-cultural model of ten human values.
Schwartz's Value Survey (SVS)	The original measure of values, that corresponds to Schwartz's Model of Human Values.
Security	This is a value that refers to security for oneself and society. These individuals value safety and stability (Schwartz, 1992).
Self-as-context	The awareness that people are independent of their thoughts and emotions (Hayes, 2007) and not defined by them. It is the opposite of attachment to the conceptualised self.
Self-direction	A value defined by independent thought and action. Individual who value this, seek autonomy and independence (Schwartz, 1992).
Self-enhancement	A value domain characterised by self-interest either through the control of people and resources or being viewed as competent and successful. It is comprised of achievement and power (Schwartz, 1992).

Self-transcendence	A value domain that emphasises recognising and responding to the needs of others. It is comprised of universalism and benevolence (Schwartz, 1992).
Stimulation	A value that is defined by desiring excitement, novelty and a challenging life. It may reflect a biological need for stimulation and arousal (Schwartz, 1992).
Tracking	A form of rule governed behaviour where behaviour is determined by naturally occurring positive or negative reinforcement (Hayes, 1999). For example, wearing a coat when it is cold. Negative tracking is when behaviour is engaged in to prevent a naturally occurring contingency, for example drinking because it prevents the occurrence of negative private events such as memories.
Tradition	A value that incorporates a respect or commitment towards the customs of a culture or religion (Schwartz, 1992).
Transfer of stimulus function	A process related to relational framing. When two stimuli become connected via experience or learning, they begin to share some of the same features. For example if a child is bitten by a dog the actual experience is likely to be painful and scary, the transfer of stimulus functions is the process by which the properties of fear attached to the dog becomes connected to all dogs, so that all dogs are then feared.
Universalism	A value that is similar to benevolence but refers to all people, and includes those that are unknown to the individual (Schwartz, 1992).
Valued living	A term to describe a life where someone lives consistently with the values they find personally meaningful.
VLQ	The Valued Living Questionnaire (Wilson *et al*., 2010).This is the predominant measure of 'valued living' within the ACT literature. Individuals are required to rate the importance of pre-defined values and the consistency with which they have lived by them.
WHO	The World Health Organization

WHOQOL-BREF The WHO's measure of quality of life (The WHOQOL Group, 1996). This is a shortened version of the WHOQOL-100 and therefore is more amenable to research. It assesses quality of life in a range of domains (physical health, psychological well-being, social relationships and environment).

Workability In an ACT intervention, behaviours are judged in terms of their 'workability'. This is the extent to which the behaviour helps an individual live a meaningful and valued life. It is linked to the 'pragmatic truth criterion'.

Appendix 2: NHS Lothian Ethical Approval

Lothian NHS Board

Lothian Research Ethics Committees
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NHS Lothian

30 September 2009

Ms Louise Tansey
Trainee Clinical Psychologist
University of Edinburgh & NHS Lothian
The Orchard Clinic
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Dear Ms Tansey

Study Title:	**An exploration of how values apply to a mentally disordered offender population within medium secure psychiatric units.**
REC reference number:	**09/S1101/44**
Protocol number:	**v.1**
EudraCT number:	**N/A**

Thank you for your letter of 21 September 2009, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered in correspondence by a sub-committee of the REC at a meeting held on 23 September 2009. A list of the sub-committee members is attached.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

NHS
Lothian

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk. Where the only involvement of the NHS organisation is as a Participant Identification Centre, management permission for research is not required but the R&D office should be notified of the study. Guidance should be sought from the R&D office where necessary.

Sponsors are not required to notify the Committee of approvals from host organisations.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Appendix L	v.1	26 July 2009
Appendix K		
Letter of invitation to participant	v.1	26 July 2009
Advertisement	v.1	26 July 2009
Questionnaire: Appendix J		
Questionnaire: Appendix I		
Questionnaire: Appendix H		
Questionnaire: Appendix G		
Questionnaire: Appendix F		
Letter from Sponsor		
Summary/Synopsis	v.1	27 July 2009
Covering Letter		
Protocol	v.1	27 July 2009

NHS
Lothian

Investigator CV		
REC application	v.1	24 July 2009
Participant Information Sheet	2	21 September 2009
Participant Consent Form	2	21 September 2009
Questionnaire	2	12 September 2009
Response to Request for Further Information		21 September 2009

Statement of compliance

This Committee is recognised by the United Kingdom Ethics Committee Authority under the Medicines for Human Use (Clinical Trials) Regulations 2004, and is authorised to carry out the ethical review of clinical trials of investigational medicinal products.

The Committee is fully compliant with the Regulations as they relate to ethics committees and the conditions and principles of good clinical practice.

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

NHS
Lothian

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

09/S1101/44	**Please quote this number on all correspondence**

Yours sincerely

pp

Mr Nicholas Grier
Chair

Email: emily.pendleton@nhslothian.scot.nhs.uk

Enclosures: *List of names and professions of members who were present at the meeting and those who submitted written comments*

"After ethical review – guidance for researchers"

Appendix 3: NHS Lothian R&D Approval

NHS
Lothian

Queen's Medical Research Institute
47 Little France Crescent, Edinburgh, EH16 4TJ

Research & Development
Room E1.12
Tel: 0131 242 3330
Fax: 0131 242 3343
Email:
R&DOffice@luht.scot.nhs.uk

Director:
Professor David E Newby

CPP/JB/approval

22 October 2009

Ms Louise Tansey
The Orchard Clinic
Royal Edinburgh Hospital
Morningside Terrace
Edinburgh
EH10 5HF

Dear Ms Tansey,

Lothian R&D Project No: **2009/P/PSY/12**

Title of Research: An exploration of how values apply to a mentally disordered offender population within medium secure psychiatric units.

MREC No: 09/S1101/44 **LREC No:** N/A

CTA No: N/A **Eudract:** N/A

PIS: Version 1 dated July 2009 **Consent:** Version 1 dated July 2009

Protocol No: Version 1 dated 24 July 2009

I am pleased to inform you that this study has been approved for NHS Lothian and you may proceed with your research, subject to the conditions below. This letter provides Site Specific approval for NHS Lothian.

Please note that the NHS Lothian R&D Office must be informed if there are any changes to the project such as amendments to the protocol, recruitment, funding, personnel or resource input required of NHS Lothian.

Substantial amendments to the protocol will require approval from the ethics committee which approved your study.

Please inform this office when recruitment has closed and when the study has been completed.

I wish you every success with your study.

Yours sincerely

Dr Christine P Phillips
Deputy R&D Director

enc Research Governance Certificate ☛(to be signed and returned)

cc Pamela Shand NHS Research Scotland NRSCC

Appendix 4: E-mails inviting participation

Dear

Thank you for agreeing to hear more about this research. I am a Trainee Clinical Psychologist, studying at the University of Edinburgh. To meet the criteria of this postgraduate course I am conducting research about people's values and their mental health. I hope to compare two groups of people, one group will consist of those within psychiatric care and the other will be those without mental health difficulties. If you were to participate, you would be part of the second group.

This research has received ethical approval from The University of Edinburgh and NHS Lothian. I am conducting it to meet the requirements of a postgraduate qualification in Clinical Psychology. The online survey is hosted by Edinburgh and Bristol universities (www.survey.ed.ac.uk/values2009).

Information about the research is provided prior to participating. If you are considering participation it is important that you read this. If you have any questions about the study, please do not hesitate to be in touch. I can be contacted at this e-mail address (Louise.Tansey@NHS.net).

Taking part in this research should take approximately 25 minutes. Your participation is anonymous and your confidentiality will be maintained. The information you provide will not be shared with any third parties. Although it is very unlikely that taking part will cause distress, if you find that some of your answers cause you concern I recommend that you contact your GP to discuss these issues. If you would like to find out about the results of the study, you will have the opportunity to indicate this at the end of the survey.

I would be grateful if you could forward this e-mail to three people that you know. Increasing the number of participants will allow me to be more confident about the results of the study.

To participate in the study, please click on this link www.survey.ed.ac.uk/values2009. Your participation is gratefully appreciated.

Louise Tansey

Trainee Clinical Psychologist
NHS Lothian

Appendix 5: Study 1 Participant Information Sheet

Participant information sheet – Version 1 – July 2009

An exploration of the values of a psychiatric population

What is the purpose of this study?

Some of the treatments for mental health difficulties take account of people's values. One example of this is a type of therapy called Acceptance and Commitment Therapy (ACT). ACT aims to help people identify the values that they have lost sight of and help them to live a life they find meaningful. This study hopes to find out about the values of a psychiatric and healthy population, and some of the psychological processes that interfere with people having a personally meaningful life. Treatments offered by the NHS need to have evidence that they are effective. It is expected that this study will contribute to the growing evidence that supports ACT.

Why have I been chosen?

Two groups of people are taking part in this study. One group is made up of those who are currently in psychiatric care and the other consists of people without mental health difficulties. You have been asked to participate as part of the second group. The two groups will then be compared.

Not everyone would be suitable to take part. Those who are not suitable include anyone who has had time off work due to mental health difficulties in the past year; has a criminal record or is under 18 years of age. Having these criteria allows us to be more certain of the results we will obtain. Participants will be asked to confirm that they meet these criteria prior to participation.

Do I have to take part?

Taking part in this study is voluntary. This information sheet is designed to help you decide whether you want to participate. If you decide to take part, you can change your mind at any time without giving a reason.

If I decide to take part, what will happen next?

Those who agree to consider participating will be asked for their e-mail address. This is so that they can be sent a link to the online questionnaire. This questionnaire is hosted by the University of Edinburgh. Your e-mail address will only be used for this purpose. Alternatively, you can access the survey at **www.survey.ed.ac.uk/values2009**.

The first part of the questionnaire will ask you to confirm that you consent to take part in the research. There will then be several questions that ask whether you meet the criteria. You will then be asked to complete an online questionnaire about your values, your current wellbeing and quality of life. It is expected that it will take approximately 30 minutes to complete.

At the end of the study you will be given the opportunity to request a summary of this study's results.

What do I do if I want to take part?
If you are interested in participating, please give your e-mail address to the researcher or access this link (**www.survey.ed.ac.uk/values2009)** on the internet. If you have any questions please contact the researcher, the contact details are below.

What are the benefits of taking part?
By participating in this research, you will be contributing to our knowledge of how mental health problems can interfere with people's efforts to live a meaningful life. This will help us to develop better interventions to help people recover.

Are there any disadvantages to taking part?
Taking part in this study should not cause any distress or discomfort. All participation is anonymous and so the researcher is unable to follow up any individuals whose answers indicate personal difficulties. If you feel that you are experiencing psychological distress and would like support for this, then you should contact your General Practitioner.

Will my taking part in the study be kept confidential?
Any information you provide will be kept confidential. Your name will not be requested, and so all the information is anonymous. Your e-mail address will only be used as part of the initial administration process. It will not be shared with any third parties. After 10 days, this information will be destroyed.
If you choose to receive a summary of the results, you will be asked to provide your e-mail address again. This will be stored securely and separate from the answers you provide. It will only be used for this purpose, following which it will be destroyed.

When the study is written up, all identifying information will be removed so that no one reading it will be able to identify any individuals taking part.

What will happen to the results of the research study?
This study is a requirement of the researcher's training to become a Clinical Psychologist. Once completed, a copy of the thesis will be held at the University of Edinburgh. The results may also be published in a journal or presented at a conference. It will not be possible to identify individual participants when the results are shared with others.
If you wish, the researcher will be able to provide you with a summary of the results. Arrangements for this are described at the end of the questionnaire.

Who has given approval for this study?
This study has been approved by the University of Edinburgh and the NHS Research Ethics process.
Thank you for reading this information sheet. If you have any questions, do not hesitate to contact me.

Who do I contact if I have any questions?

Louise Tansey, Trainee Clinical Psychologist (Louise.Tansey@NHS.net)
The Orchard Clinic, NHS Lothian. Tel.: 0131 537 5830

Appendix 6: WHOQOL-BREF

This measure has not been reproduced in the appendix due to copyright restrictions.

Appendix 7: WHOQOL-BREF Copyright permission

Re: WHOQOL-BREF

Mick Power

You replied on 06/07/2010 08:13.

Sent: 09 July 2009 12:19

To: Tansey Louise (NHS Lothian)

Attachments: -)[Open as Web Page]; -)[Open as Web Page]

Hi Louise,

Please find attached a copy of the WHOQOL-BREF. No doubt you will need to adjust the format for an on-line version, but as long as you keep the questions and the order in which they appear that should be fine.

With best wishes,
Mick.

Appendix 8: Portrait Values Questionnaire

This measure has not been reproduced in the appendix due to copyright restrictions.

Appendix 9: Cognitive Fusion Questionnaire

CFQ13

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

1	2	3	4	5	6	7
never true	very seldom true	seldom true	sometimes true	frequently true	almost always true	always true

1.	My thoughts cause me distress or emotional pain	1 2 3 4 5 6 7
2.	I get so caught up in my thoughts that I am unable to do the things that I most want to do	1 2 3 4 5 6 7
3.	Even when I am having distressing thoughts, I know that they may become less important eventually	1 2 3 4 5 6 7
4.	I over-analyse situations to the point where it's unhelpful to me	1 2 3 4 5 6 7
5.	I struggle with my thoughts	1 2 3 4 5 6 7
6.	Even when I'm having upsetting thoughts, I can see that those thoughts may not be literally true	1 2 3 4 5 6 7
7.	I get upset with myself for having certain thoughts	1 2 3 4 5 6 7
8.	I need to control the thoughts that come into my head	1 2 3 4 5 6 7
9.	I find it easy to view my thoughts from a different perspective	1 2 3 4 5 6 7
10.	I tend to get very entangled in my thoughts	1 2 3 4 5 6 7
11.	I tend to react very strongly to my thoughts	1 2 3 4 5 6 7
12.	Its possible for me to have negative thoughts about myself and still know that I am an OK person	1 2 3 4 5 6 7
13.	It's such a struggle to let go of upsetting thoughts even when I know that letting go would be helpful	1 2 3 4 5 6 7

Appendix 10: Acceptance and Action Questionnaire – II

AAQ-2

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

1	2	3	4	5	6	7
never true	very seldom true	seldom true	sometimes true	frequently true	almost always true	always true

1.	Its OK if I remember something unpleasant.	1	2	3	4	5	6	7
2.	My painful experiences and memories make it difficult for me to live a life that I would value.	1	2	3	4	5	6	7
3.	I'm afraid of my feelings.	1	2	3	4	5	6	7
4.	I worry about not being able to control my worries and feelings.	1	2	3	4	5	6	7
5.	My painful memories prevent me from having a fulfilling life.	1	2	3	4	5	6	7
6.	I am in control of my life.	1	2	3	4	5	6	7
7.	Emotions cause problems in my life.	1	2	3	4	5	6	7
8.	It seems like most people are handling their lives better than I am.	1	2	3	4	5	6	7
9.	Worries get in the way of my success.	1	2	3	4	5	6	7
10.	My thoughts and feelings do not get in the way of how I want to live my life.	1	2	3	4	5	6	7

Appendix 11: Valued Living Questionnaire

Valued Living Questionnaire

Below are areas of life that are valued by some people. We are concerned with your quality of life in each of these areas. One aspect of quality of life involves the importance one puts on different areas of living. Rate the importance of each area (by circling a number) on a scale of 1-10. 1 means that area is not at all important. 10 means that area is very important. Not everyone will value all of these areas, or value all areas the same. Rate each area according to **your own personal sense of importance**.

Area		**not at all important**									**Extremely important**
1.	Family (other than marriage or parenting)	1	2	3	4	5	6	7	8	9	10
2.	Marriage/couples/intimate relations	1	2	3	4	5	6	7	8	9	10
3.	Parenting	1	2	3	4	5	6	7	8	9	10
4.	Friends/social life	1	2	3	4	5	6	7	8	9	10
5.	Work	1	2	3	4	5	6	7	8	9	10
6.	Education/training	1	2	3	4	5	6	7	8	9	10
7.	Recreation/fun	1	2	3	4	5	6	7	8	9	10
8.	Spirituality	1	2	3	4	5	6	7	8	9	10
9.	Citizenship/Community Life	1	2	3	4	5	6	7	8	9	10
10.	Physical self care (diet, exercise, sleep)	1	2	3	4	5	6	7	8	9	10

In this section, we would like you to give a rating of how consistent your actions have been with each of your values. We are **not** asking about your ideal in each area. We are also **not** asking what others think of you. Everyone does better in some areas than others. People also do better at some times than at others. **We want to know how you think you have been doing during the past week.** Rate each area (by circling a number) on a scale of 1-10. 1 means that your actions have been completely inconsistent with your value. 10 means that your actions have been completely consistent with your value.

During the past week

Area		**not at all consistent with my value**									**Completely consistent with my value**
1.	Family (other than marriage or parenting)	1	2	3	4	5	6	7	8	9	10
2.	Marriage/couples/intimate relations	1	2	3	4	5	6	7	8	9	10
3.	Parenting	1	2	3	4	5	6	7	8	9	10
4.	Friends/social life	1	2	3	4	5	6	7	8	9	10
5.	Work	1	2	3	4	5	6	7	8	9	10
6.	Education/training	1	2	3	4	5	6	7	8	9	10
7.	Recreation/fun	1	2	3	4	5	6	7	8	9	10
8.	Spirituality	1	2	3	4	5	6	7	8	9	10
9.	Citizenship/Community Life	1	2	3	4	5	6	7	8	9	10
10.	Physical self care (diet, exercise, sleep)	1	2	3	4	5	6	7	8	9	10

Appendix 12: CORE-OM

This measure has not been reproduced in the appendix due to copyright restrictions.

Appendix 13: CORE Copyright permission

Re: CORE-OM enquiry

Richard Evans […]

You replied on 24/07/2009 09:31.

Sent:24 July 2009 08:26

To: Tansey Louise (NHS Lothian)

To implement CORE OM in software as an online questionnaire does need permission. We are happy to grant that permission but limiting the use of that online questionnaire to your research project - and subject to the CORE OM measure not being changed and copyright being acknowledged.

Richard Evans

Trustee
CORE System Trust

Appendix 14: Study 1 consent questions

Online Participant Consent Form

Version 1, July 2009

1. I confirm that I have read and understand the information sheet dated July 2009 (version 1) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	Yes ☐ No ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.	Yes ☐ No ☐
3. I understand that the data collected during the study may be looked at by individuals from the Orchard Clinic (NHS Lothian) or the University of Edinburgh. This data will be anonymous. I give permission for these individuals to have access to this.	Yes ☐ No ☐
4. I understand that the anonymised findings of the research may be published or shared with other professionals (this does not include any details that identify you personally)	Yes ☐ No ☐
5. I agree to take part in the above study	Yes ☐ No ☐

Appendix 15: Study 1 Exclusion / Inclusion criteria

Online Inclusion Criteria

As part of the research process, there are various factors that need to be taken into account so that I can be sure that the results answer the questions posed by the study. This is because I am comparing the responses of two groups of people. So that this comparison can occur fairly, there are some restrictions on who would be able to participate.

	Yes	No
Are you British?	☐	☐
Are you aged over 18?	☐	☐
Would you confirm that you have not had time off work due to mental health difficulties in the past year?	☐	☐
Would you confirm that you do not have a criminal record? (excluding speeding tickets or parking fines)	☐	☐

Appendix 16: Preliminary statistical analysis for study 1

Histograms

Figure 26: histogram of self-transcendence scores

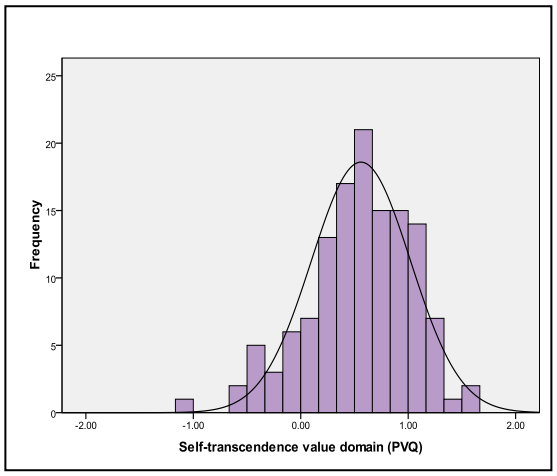


Figure 16.3: histogram of conservation scores

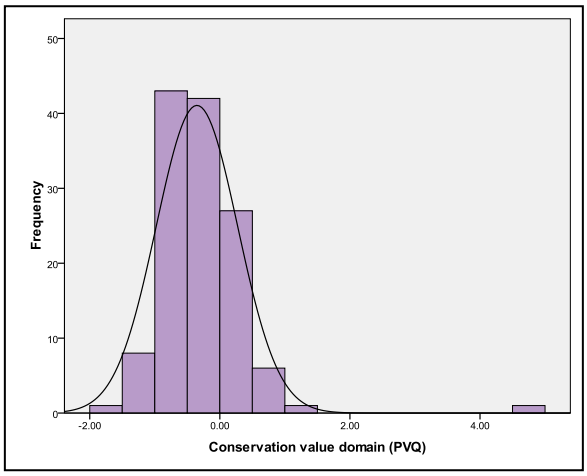


Figure 27: Histogram of self-enhancement scores

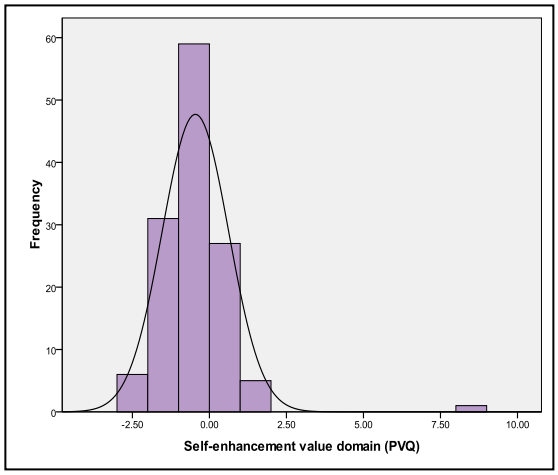


Figure 16.4: histogram of openness to change scores

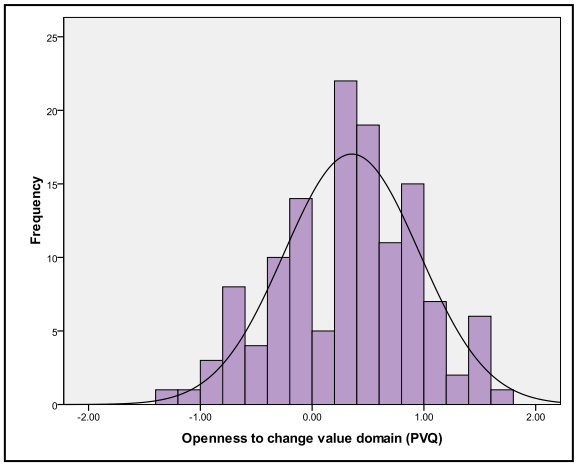


Figure 16.5: Histogram of Cognitive fusion scores

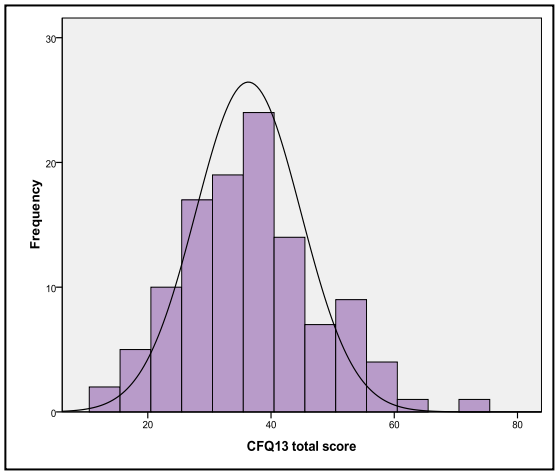


Figure 28: Histogram of psychological distress scores

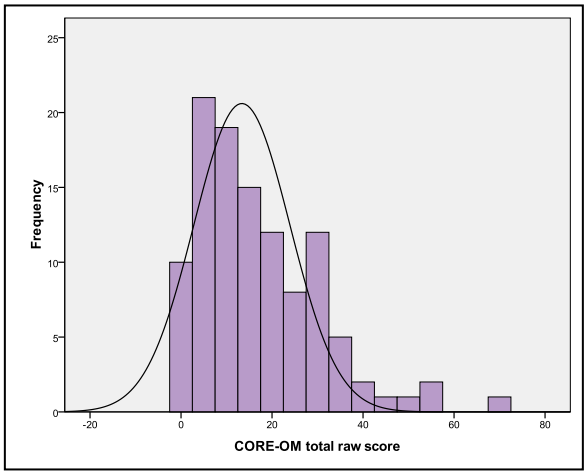


Figure 16.6: Histogram for the consistency with which people live with important values

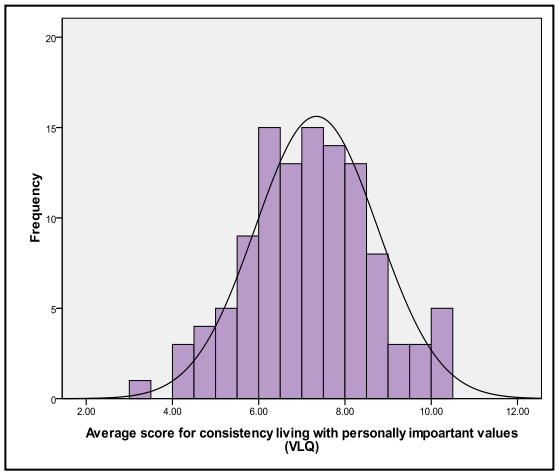
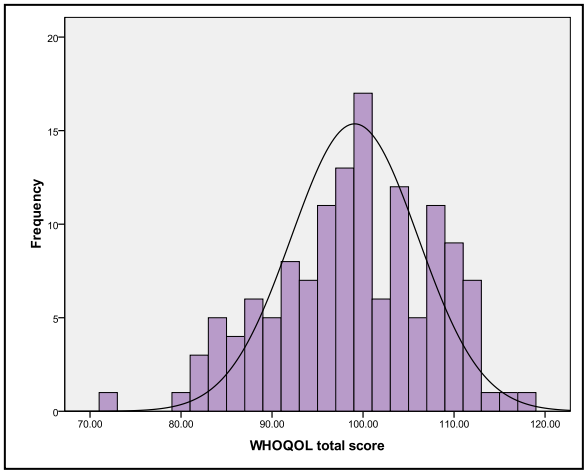


Figure.29: Histogram of quality of life scores



Data normality

Table 15: Kolmogrov-Smirnov test of normality of data

	WHOQOL total score	Self-transcendence value domain	Self-enhancement value domain	Conservatism value domain	Openness to change value domain	CFQ13 Total	AAQ2 Total	CORE-OM total raw score	Average score for consistency living with important values
N	134	129	129	129	129	113	112	109	111
Kolmogorov-Smirnov Z	.70	.64	1.34	1.10	.90	.79	1.05	1.31	.37
P (2-tailed)	.72	.80	.05	.18	.39	.56	.22	.06	1.00

Appendix 17: MDO Participant Information Sheet

Participant information sheet (Version 2, September 2009)
An exploration of the values of people who reside within a medium secure unit.

What is the purpose of this study?
The Orchard Clinic wants to help patients to live a meaningful and fulfilling life as part of their recovery. To do this, we need to know more about what people's values (what is important to them) are. Paying attention to people's values is also the focus of a type of therapy called Acceptance and Commitment Therapy. This study hopes to find out more about what people value and the things that might prevent them living a life that they find meaningful by asking you and others questions.

Why have I been chosen?
There are two groups of people taking part in this study. One group is made up of people without mental health difficulties. The other group is made up of those who are currently living in a medium secure unit. You have been asked to participate because you are in the Orchard Clinic at the moment.

Do I have to take part?
Taking part in this study is voluntary. To help you make this decision, the study will be described to you. You will be given a copy of this information sheet, and will have the opportunity to ask any questions. After this you will be asked if you want to take part.

If you decide to take part, you can change your mind at any time without giving a reason. Deciding that you do not want to participate, will not affect the care that you receive or your legal rights.

If I decide to take part, what will happen next?
If you decide to take part, you will be asked to sign a consent form to say that you agree to take part. You will be given a copy of this. You will then meet with the researcher (Louise Tansey, Trainee Clinical Psychologist) again. At this appointment, you will be asked to complete some questionnaires and have a short conversation about what's important in your life: your values.

If you have difficulty with reading or writing, the researcher will be able to read it to you or write down your answers. The conversation about your values will be recorded. This is so that the researcher will have an accurate record of the views you express. This conversation will then be typed up into a document which does not include your name, and the recording will be destroyed.
The appointment should take about an hour, unless you require longer. However, there could be two meetings if you prefer. Following this appointment, your involvement will have finished.

What do I do if I want to take part?
If you agree to take part, you should read this information sheet and discuss any concerns with the researcher. You will then be asked to sign a consent form.

What are the benefits of taking part?
Taking part may help you to think about what you find meaningful in life. Each person's contribution will help improve our understanding of people's values, and what stops them from doing what is important to them. This may help to improve the treatment we provide to others in the future.

Are there any disadvantages to taking part?
It is not thought that taking part in this study will cause you any distress or discomfort.

Will my taking part in the study be kept confidential?
Any information you provide will be kept confidential. Your name will be removed from the answers you provide. This means that all the information given become anonymous. After the recordings have been typed into a document, they will be destroyed. All the documents will be stored securely.
When the study is written up, all identifying information will be removed so that no one reading it will be able to identify the individuals taking part.

Your Clinical Team will be aware that you are taking part in the study. An extra copy of this information sheet and your consent form will be kept in your medical notes, however your answers will not be. The only time that the Clinical Team will be given more information about your participation is if the researcher is concerned about your well-being or the safety of others.

What will happen to the results of the research study?
This study is being carried out as part of the researcher's training to become a Clinical Psychologist. Once it is completed, a copy of the thesis will be held at the University of Edinburgh. The results may also be published in a journal or presented at a conference. It will not be possible to identify individual participants when the results are shared with others.

If you wish, the researcher will be able to provide you with a summary of the results.

Who has given approval for this study?
This study has been reviewed by the University of Edinburgh, NHS Lothian and The Orchard Clinic. They have all approved it.

Thank you for reading this information sheet. If you have any questions, do not hesitate to contact me. This can be done through any member of staff.

Who do I contact if I have any questions?
Louise Tansey, Trainee Clinical Psychologist.
The Orchard Clinic, tel.: 0131 537 5830

Appendix 18: MDO Consent form

Participant Consent Form (Version 2, September 2009)

An exploration of the values of people who reside within a medium secure unit.

PLEASE INITIAL BOX
(OR DELETE WHERE APPROPRIATE)

1. I confirm that I have read and understand the information sheet dated September 2009 (version 2) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. ☐

3. I understand that any information which causes concern about my well-being or the safety of others will be shared with my clinical team and summarised in my medical notes. ☐

4. I understand that the data collected during the study may be looked at by individuals from the Orchard Clinic or the University of Edinburgh. This data will be anonymous. I give permission for these individuals to have access to this. ☐

5. I understand that part of the research will involve a conversation being recorded. This conversation will then by typed up and the recording destroyed. I give permission for this to happen. ☐

6. I understand that the anonymised findings of the research may be published or shared with other professionals (this does not include any details that identify you personally). ☐

7. I would like to receive a summary of the results. YES / NO

8. I agree to take part in the above study. ☐

Name of participant	Date	Signature
Name of chief investigator	Date	Signature

Appendix 19: Preliminary statistical analysis for study 2

Table 19.1: Shapiro Wilk Test of Normality

	Statistic	d.f.	Sig.
QoL total score	.95	15	.54
Hedonism centred score	.95	15	.50
Self-transcendence centred score	.94	15	.35
Self-enhancement centred score	.94	15	.43
Conservatism centred scores	.96	15	.66
Openness to change centred scores (OTC)	.98	15	.98
CFQ13 total score	.98	15	.94
Average score for consistency living with important values	.91	15	.12
CORE: total raw score*	.84	15	**.01**
AAQ2 total score	.94	15	.34

* Data for this variable is not normally distributed

Appendix 20: Exploratory Interview

Exploratory questions about values

Thank you for filling out these questionnaires. I would now like to ask you a couple of questions about the role values play in your life. As you know, we have been thinking about what is important to you.

Values act as a guideline for our lives. Following these guidelines lets you have a life full of personally meaningful experiences. Different people have different values that make their life meaningful. Our values influence the choices we make and the goals we set ourselves.

Examples of values include:

- *Family (other than marriage / parenting)*
- *Marriage / couples / intimate relationships.*
- *Friends / social life.*
- *Parenting*
- *Citizenship / community life*
- *Being good at what you do.*
- *Status / power*
- *Learning*
- *Excitement and novelty*
- *Pleasure*
- *Independent thought / action*
- *Upholding traditions / religious values*
- *Safety and stability*
- *Physical health*
- *Spirituality*
- *Conformity*

If we were to think about the values you have….

1. **In the last week, how much time did you spend thinking about the values that guide your life? (please circle the number that best represents this)**

2. **If you had such thoughts about your values in the last week, what did you think about?**

3. **<u>At the moment</u>, how meaningful do you find your life? (***please tick 1***)**

   □ **I have no meaningful experiences in my life at the moment**

   □ **I have plenty of meaningful experiences in my life at the moment.**

   □ **I have some meaningful experiences in my life at the moment.**

4. **What are the 2 values that are important to you because they are personally meaningful?**

   (these can be ones you have thought of yourself or ones that are chosen from the box above)

5. **What is it about these values that make them meaningful to your life <u>at the moment</u>?**

6. **Why do you think they have become meaningful to you?**

7. **Do you believe that <u>you</u> decided that these would be the most important values in your life? (***please tick 1*)

   □ **Yes, I made the decision that these values would be important to me.**

   □ **No, I think that other people have made this decision for me.**

   □ **No, I think that life circumstances led to these values becoming most important.**

8. **If you answered "No" to the above question: Would <u>you</u> choose different values to be the <u>most</u> important in your life?**

   □ **Yes**

   If yes, what 2 would you choose?

□ **No**

9. **Everyone has different values. What 2 values do <u>you</u> find the <u>least</u> meaningful?**

   (these can be ones you have thought of yourself or ones that are chosen from the box above)

10. **Why do <u>you</u> think this is?**

11. **Do <u>you</u> believe that you decided that these would be the <u>least</u> important values in your life? (*please* tick)**

    □ **Yes, I made the decision that these values would not be important to me.**

    □ **No, I think that other people have made this decision for me.**

    □ **No, I think that life circumstances led to these values becoming the least important.**

12. **Would <u>you</u> prefer that these values were <u>more</u> important in your everyday life?**

    □ **Yes**

    □ **No**

What is most important to you in life?

13. **What would make your life better?**

Appendix 21: Coding manual for exploratory questions

Exploratory questions about values

Participants were asked a series of closed and open-ended questions (Appendix 20). Their responses were coded according to categories derived from the ACT literature. Participants were unaware of the coding manual when they provided their responses.

The Coding Manual

1. **In the last week, how much time did you spend thinking about the values that guide your life?** Answers range from 0 – 7.

2. **If you had such thoughts about your values in the last week, what did you think about?**

a)	**Presence of values**	Response indicated that participants thought about the current presence of values within their life.
b)	**Absence of values**	Response indicated that participants thought about the absence presence of values within their life.
c)	**Evaluation of life in relation to values**	Response indicated that participants were evaluating their current life in terms of their values and what is meaningful to them.
d)	**Future valued direction**	Response indicated that participants thought about their future in relation to their values and the actions that would allow them to pursue them.
e)	**Previous experience of values**	Response indicated that the participant thought about prior experience of a value, and these thoughts were a rewarding experience.
f)	**Goals**	Response indicated that participants had thought about discrete goals. Although these goals may be related to values, this relationship was not alluded to.
g)	**Did not think about them**	Participant did not think about their values in the preceding week.
h)	**Contemplated historical values**	Response indicated that the participant spent time contemplating past values and value-consistent action, and that this was an intrinsically rewarding process
h)	**Other**	

3. **At the moment, how meaningful do you find your life?**
   a) I have plenty of meaningful experiences in my life at the moment.
   b) I have some meaningful experiences in my life at the moment.
   c) I have no meaningful experiences in my life at the moment.

4. What are the two values that are important to you because they are personally important?

	Value	Definition
a)	**Family**	Individual values being an active part of their family (siblings, parents, and wider family members), looking after and enhancing family members' well-being. This does not include marriage or parenting.
b)	**Intimate relationships.**	Individual values intimate relationships, marriage, looking after their partner, preserving and enhancing their well-being, creating a mutually positive relationship.
c)	**Parenting**	Individual values being a parent to their children. Providing care and support to them, being the best parent they can be
d)	**Friends / social life.**	Individual values friendships and being an active friend who cares for and tries to preserve and enhance the well-being of friends.
e)	**Relationships (unspecified)**	Relationships were identified as important, but the people that the relationship would be with (e.g. family, friends or partners).
f)	**Citizenship**	Individual values being part of a wider community. Despite not having direct contact with each member of the community, they value tolerance and respect for others who may be different to themselves. Believe that the welfare of people and nature should be protected. Community life, human rights and environmental concerns would be important.
g)	**Spirituality**	Values an awareness of what binds people together, respect for others and their choices
h)	**Pleasure**	Individual values pleasure and gratification.
i)	**Being good at what you do.**	Individual strives to be as good as they can be in their occupation. Value competence at an activity.
j)	**Status / power**	Individual values having other people looking up to them, being in charge of people and resources (including possessions & money)
k)	**Work**	Individual values pursuing a career.
l)	**Learning**	Individual values education and learning.
m)	**Physical health**	Individual values their physical health. Healthcare, a healthy diet and exercise are important to them.
n)	**Safety and stability**	Individual values consistency, feeling safe and being in a stable environment.
o)	**Excitement and novelty**	Individual values excitement and novel experiences, always being challenged, having a variety of experiences.
p)	**Independent thought / action**	Individual values being autonomous.
q)	**Tradition / religion**	Individual values upholding and living according to the traditions associated with their society or religion.
r)	**Conformity**	Individual values social expectations and rules above personal wishes
s)	**Creativity**	Individual values opportunities to be creative.

t)	**Delusion**	Response indicated that the individual valued a delusional belief.
u)	**Well being of others**	The well-being of those close to the individual is of paramount importance.
v)	**Other**	

5. What is it about these values that make them meaningful to your life <u>at the moment</u>?

a)	**Value**	The response was indicative of a value if the reason implied ongoing intrinsic positive reinforcement.
b)	**Pliance rule governed behaviour**	The response indicated that a value because of socially mediated consequences (e.g.: approval, money)
c)	**Tracking rule governed behaviour**	The response indicated that a value is pursued because of naturally occurring consequences.
d)	**Augmental rule governed behaviour**	The response indicated that the value is pursued because of the imagined consequences of doing so.
e)	**Experiential avoidance**	The response indicated that the reason a value is pursued is to control or limit negative emotional states.
f)	**Current positive reinforcement**	The response indicated that this value currently provides positive reinforcement, but there was no suggestion of it doing so in the future.
g)	**Contingency shaped behaviour**	The response indicated that prior experience of this value has informed the decision to pursue it. There was no indication of whether this was positive or negative experience.
h)	**Other**	

6. Why do you think that they have become meaningful to you?

a)	**Pliance rule governed behaviour**	The response indicated that a value was meaningful because of socially mediated consequences (e.g.: approval, money)
b)	**Tracking rule governed behaviour**	The response indicated that a value was important because of naturally occurring consequences.
c)	**Augmental rule governed behaviour**	The response indicated that the value is pursued because of the imagined consequences of doing so.
d)	**Previous positive reinforcement (contingency shaped behaviour)**	Response indicated that this value has become important because prior experience of this value being present has been positive.
e)	**Previous negative reinforcement (contingency shaped behaviour)**	Response indicated that this value has become important because prior experience of this value not being present has been negative.
f)	**Contingency shaped behaviour (nature unknown)**	The response suggested that this value has become important because of previous experience, but they do not describe the nature of this experience.
g)	**Previous avoidance**	Previous avoidance of this value has been a negative experience for the individual, and increased their belief in the importance of this value.

h)	**Experiential avoidance**	The response indicated that the reason a value is pursued is to control or limit negative emotional states.
i)	**Other**	

7. Do you believe that <u>you</u> decided that these would be the most important values in your life?

- Yes, I made the decision that these values would be important to me.
- No, I think that other people have made this decision for me.
- No, I think that it is life circumstances that have led to these values becoming most important.

8. If you answered 'no' to the above question: would <u>you</u> choose different values to be the <u>most</u> important in your life?

Yes or no.

9. Everyone has different values. What 2 values do <u>you</u> find the <u>least</u> meaningful?

See question 4.

10. Why do <u>you</u> think this is?

a)	**Pliance rule governed behaviour**	The response indicated that a value was not meaningful because of socially mediated consequences (e.g.: approval, money)
b)	**Tracking rule governed behaviour**	The response indicated that a value is not pursued because of naturally occurring consequences.
c)	**Augmental rule governed behaviour**	The response indicated that the value is not pursued because of the imagined consequences of doing so.
d)	**Perceived lack of positive reinforcement**	The response indicated that the individual did not believe that pursuit of this value would be rewarding to them.
e)	**Incompatible with values**	The response suggested that the pursuit of these values was perceived as incompatible with the pursuit of those they found meaningful.
f)	**Previous experience**	The response suggested that previous experience had led the individual to believe that this value was not meaningful to them.
g)	**Other**	

11. Do <u>you</u> believe that you decided that these would be the <u>least</u> important values in your life?

- Yes, I made the decision that these values would not be important to me.
- No, I think that other people have made this decision for me.
- No, I think that it is life circumstances that have led to these values not becoming important.

12. Would <u>you</u> prefer that these values were more important in your life?

Yes or no.

13. What is most important to you in life?

See question 4

14. What would make your life better?

a)	**Value**	Response indicated that the continued pursuit of a value that is intrinsically reinforcing would make the participant's life better.
b)	**Value consistent goal**	Response indicated that the achievement of a discrete goal associated with a personally important value would make the participant's life better.
c)	**Achievement of a specific goal**	Response indicated that the achievement of a discrete goal which is not overtly relevant to personal values would make the participant's life better.
d)	**Less avoidance**	Response indicated that the participant wants to be less concerned with limiting and avoiding negative emotional states in the future.
e)	**An emotional state**	Response indicated that the achievement of a positive emotional state for themselves or those close to them would make their life better.
f)	**Overcoming perceived barriers to 'valued living'**	The participant believed they currently faced obstacles (emotional or practical) that had to be overcome before values could be pursued. It seemed that the values were 'on hold'
g)	**Nothing**	Response indicated that there as nothing that would make their life better.
h)	**Don't know**	Response indicated that the participant did not know what would make their life better.
i)	**Other**	